

**FACTORS INFLUENCING SUCCESSFUL IMPLEMENTATION OF BASIC ANTE  
NATAL CARE PROGRAMME IN PRIMARY HEALTH CARE CLINICS IN ETHEKWINI  
DISTRICT, KWAZULU-NATAL**

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Technology

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## Declaration

This is to certify that the work is entirely my own and not of any other person, unless explicitly acknowledged (including citation of published and unpublished sources). The work has not previously been submitted in any form to the Durban University of Technology or to any other institution for assessment or for any other purpose.

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Signature of student

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Date

Approved for final submission

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## **Abstract**

### **Background**

South Africa is burdened by consistently high maternal and perinatal mortality rates. In a move to alleviate this burden the South African National Department of Health (DoH) instructed the adoption of the Basic Antenatal Care (BANC) approach in all antenatal care (ANC) facilities. Whereas many facilities have begun the implementation of the BANC approach, in the eThekweni district, not all of the facilities have been successful in doing so. The study was conducted in those eThekweni Municipality Primary Health Care (PHC) facilities that have been successful in order to identify the factors influencing their success in implementing BANC.

### **Methods**

The facilities that had been successful in implementing BANC were identified, followed by a review of the past records of the patients who had completed their ANC and had given birth. This was done in order to establish whether the facilities that were said to be implementing BANC, were in fact, following BANC guidelines. The factors that influenced successful implementation of BANC were identified based on information obtained from the midwives who were working in the ANC facilities that were successfully implementing BANC. The sample size was comprised of 18 PHC facilities that were successfully implementing BANC from which a total of 59 midwives were used as the study participants.

### **Results**

Several positive factors that influenced successful implementation of BANC were identified. These factors included; availability and accessibility of BANC services: Policies, Guidelines and Protocol; various means of communication; a comprehensive

package of services and the integration of services; training and in-service education; human and material resources and the support and supervision offered to the midwives by the PHC supervisors. Other factors included BANC programme supervisors' understanding of the programme and the levels of experience of midwives involved in implementation of BANC. There were, however, certain challenges and negative factors that were identified and these included: shortage of staff; lack of cooperation from referral hospitals; lack of in-service training; problems in transporting specimens to the laboratory; lack of material resources; lack of management support and the unavailability of BANC guidelines.

## **Dedication**

First and foremost this study is dedicated to the Lord, the Almighty who is always my guardian and shepherd, for making it possible for me to pursue and successfully complete this study. Secondly, I would like to dedicate this study to all the families, fathers and children who have lost their beloved wives and mothers, especially to those children who have been orphaned because their mothers died during pregnancy or childbirth.

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**Luke 6:38 Give and it will be given to you. A good measure, pressed down, shaken together and running over, will be poured into your lap. For with the measure you use, it will be measured to you."**

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## Acronyms

Acronym	Full Word
ANC	Ante Natal Care
ARV	Anti Retro Viral
BANC	Basic Ante Natal Care
DoH	Department of Health
FANC	Focused Ante Natal Care
HB	Haemoglobin
HPCSA	Health Professions Council of South Africa
HIV	Human Immunodeficiency Virus
IMCI	Integrated Management of Childhood Illnesses
KZN	KwaZulu-Natal
KZNPA	KwaZulu-Natal Provincial Administration
MCWH	Maternal Child and Women's Health
MDG	Millennium Development Goals
MNCWH	Maternal Neonate, Child and Woman's Health
MNH	Maternal and Neonatal Health
NCCEMD	National Committee for Confidential Enquiry into Maternal Deaths
NPA	Natal Provincial Administration
PHC	Primary Health Care
PMTCT	Prevention of Mother to Child Transmission
PNC	Post Natal Care
PIP	Problem Identification Programme
PIPP	Perinatal Problem Identification Programme
RPR	Rapid Plasma Reagent
SANC	South African Nursing Council
SPSS	Statistical Package for the Social Sciences
STI	Sexually Transmitted Infection
SRH	Sexual and Reproductive Health
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

## **CHAPTER 1**

### **OVERVIEW OF THE STUDY**

#### **1.1 INTRODUCTION AND BACKGROUND TO THE STUDY**

In the fourth report of The National Committee for Confidential Enquiry into Maternal Death (NCCEMD), the committee reported that the maternal and perinatal death rate remained the major challenge of health care in South Africa. Maternal death reporting had increased by 20% during 2005-2007 trienniums when comparing it to the 2002-2004 trienniums. The provision of adequate ante natal care (ANC) was regarded as the cornerstone for maternal and perinatal care and, if this was in place, it would contribute towards achieving Millennium Development Goals (MDG) number four (to reduce child deaths) and goal number five (to improve maternal health). The detection of high-risk pregnancies through ANC has been advocated as a good tool for reducing maternal and perinatal mortality rates (Department of Health, 2008a). Effective ANC alone will not prevent global maternal and perinatal mortality. However, the care that the woman receives during pregnancy plays a vital role in ensuring that the outcome for the mother and baby is as healthy as possible (Maternal and Neonatal Health Programme, 2004). If ANC services are the key to solving the challenges of maternal and perinatal deaths then the approach that is used to provide ANC should ensure that the best quality service is provided. All facilities that are providing ANC therefore have a contribution to make to the maternal and perinatal death of the country in a positive or negative way depending on the quality of ANC. If eThekweni Municipality is not compliant in ensuring that BANC is successfully implemented, then the goal of South Africa to reduce maternal and perinatal mortality rates by 2015 will not be achieved (Department of Health, 2007a; Department of Health 2008b).

ANC programmes in developing countries have been modeled on the approaches that are used in developed countries (Villar, et al., 2007). These approaches use risk assessments to identify women who are more likely to experience complications during their pregnancies and the approaches assume that more clinic visits mean a better

outcome for the pregnancies. In these approaches more resources, which are usually scarce in the first place in developing countries, are devoted unnecessarily to women with high risks. This results in women with low risks not receiving optimal care (Pattinson, 2005a). This approach has been challenged by organizations like the World Health Organization (WHO) (Mathole, Lindmark, Ahlberg, 2005). The WHO argues that the frequent visits are often logically and financially impossible for women to manage and place a burden on the healthcare system. The WHO also states that frequent visits do not necessarily improve pregnancy outcomes (Maternal and Neonatal Health Programme, 2004). The WHO also realized that these programmes were poorly implemented and largely ineffective. They then designed and tested a focused ANC package that includes only counseling, examinations, and tests that serve an immediate purpose and have a proven health benefit (World Health Organization, 2002). The WHO recommends reducing the number of ANC visits to four, and this has not been found to pose a risk to the health of mother or baby (Villar et al., 2007). Focused ANC (FANC) recognizes that every pregnant woman is at risk for complications, and therefore provides that all women should receive the same basic care and monitoring for complications (Maternal and Neonatal Health Programme, 2004). The Maternal and Neonatal Health Programme (MNH) suggested that FANC is one of several essential maternal and neonatal care interventions that are evidence based and that build on global lessons learned about what works to save lives of mothers and newborns.

Over the past few years South Africa has been using the approach to ANC that is prescribed by the South African Nursing Council (SANC) in the scope of practice for midwives (South African Nursing Council, 1991). SANC prescribed that the midwives should ensure that the woman attend clinic once a month until she is 28 weeks pregnant and thereafter every fortnight until she is 36 weeks pregnant. From then until she gives birth, she should be seen every week. With this approach the women could have up to 12 ANC visits for one pregnancy. In 2007 South Africa introduced a new approach to ANC called Basic Ante Natal Care (BANC). This approach focuses on the quality rather than the quantity of visits, with special emphasis on the fact that every visit should be goal directed (Department of Health, 2008c).

In its ten year strategic plan (2006-2015), the National DoH has Maternal Child and Women's Health (MCWH) as one of the priority programmes. BANC is stated as the key implementation strategy for MCWH (Department of Health, 2010a). According to Pattinson, (2005a) BANC has been simplified to the bare minimum so that ANC service can be provided by every clinic sister and so that it includes the basic services that every pregnant woman requires. It focuses on early ANC attendance for all pregnant women and on limiting the total number of ANC visit to a minimum of four to five visits per pregnancy for low risk women. BANC requires that ANC services be provided daily in every facility where pregnant women present so that the first ANC is done as soon as pregnancy is diagnosed or the very first time that a pregnant woman presents to a health facility. All high-risk women are to be referred to the next level of care so that nurses at Primary Health Care (PHC) level have sufficient time to attend to women with low risk factors. Specific routine investigations, including Rapid Plasma Reagent test (RPR), Haemoglobin level test (Hb), testing for Human Immunodeficiency Virus (HIV) and testing for Rhesus Factor (RH) are done and standard preventative therapy including tetanus toxoid injection, iron preparation and calcium supplements are issued to all pregnant women during ANC. BANC requires that two sets of checklists be used for recording purposes during all ANC visits: one checklist to record the first visit and the other to use during subsequent /follow up visits (Pattinson, 2005a). Pattinson further states that before commencing implementation of BANC, a baseline audit of the ANC service and an analysis of the strengths, weaknesses, opportunities and threats (SWOT analysis of the facility is conducted. This should be done to ensure that a realistic plan is drawn up for the implementation of BANC programme. Each facility has to develop its own specific protocols for the management of obstetric conditions which must be in line with the South African National Maternity Care Guidelines and should be displayed in the facility. All the protocols should be counter-signed by the Head of the obstetric unit from the hospital to which the facility refers the women with high risk factors or complications during pregnancy. The protocols should be reviewed annually by the midwives and manager in the health facility. Regular auditing of the ANC service should be an ongoing process to ensure continuous improvement (Pattinson, 2005a). Successful implementation of BANC is when the PHC facilities are compliant with all the

provisions of BANC as stated above. These provisions are outlined in the BANC handbook (Pattinson, 2005a).

The WHO conducted randomized trials in four developing countries, namely Argentina, Cuba, Saudi Arabia and Thailand to assess women's and providers' satisfaction with the new evidence-based ANC model (Langer et al., 2002). The overall results showed that both the WHO model, which was a new model at the time, and the traditional model that had been used before the introduction of the WHO model were equally well accepted by both women and providers. The satisfaction and perceptions of women and providers suggested that no major obstacles would be faced in the adoption of the new ANC model.

## **1.2 THE PROCESS OF IMPLEMENTING BANC IN ETHEKWINI MUNICIPALITY PHC FACILITIES**

The process of BANC implementation in eThekweni district was first started as a pilot project which was launched at few facilities in the North Sub district in 2007. Both the Municipality and the KwaZulu-Natal Provincial Administration (KZNPA) facilities were included in the pilot group. The rest of the facilities were expected to start implementing BANC in 2008. However, not all municipal PHC facilities have been successful in implementing BANC programme. A few facilities have successfully implemented the programme while other facilities have either not started at all or they did start but had to stop because they experienced certain problems.

According to the DoH, (2008b) all facilities where pregnant women present should have implemented BANC by the end of 2009. Facilities were therefore required to stop using the traditional approach and start using the BANC approach to ANC. This required changes and adaptations of systems such as patient flow, patient transport, flow of laboratory specimen and the referral system.

### **1.3 COMPARISON BETWEEN BANC AND OTHER APPROACHES TO ANC**

BANC approach to ANC has some similarities and differences with other approaches to ANC. The table below provides a comparison between BANC and other approaches to ANC. According to this comparison, the BANC approach differs from the other approaches in that it stipulates that the first visit should be done on or before the woman becomes 20 weeks pregnant whilst the other approaches state that the first visit should be done on or before the first trimester. BANC is mostly comparable with FANC and the WHO model for most elements such as intervals between ANC visits, number of ANC visits, structure of ANC visits and the use of checklists. The BANC approach differs remarkably to the approach that is recommended by SANC. The timing of the first and follow up visits, the total number of visits, the interval between visits, and the structure of visits are all structured differently in these two approaches. The approach by SANC does not provide for the use of checklist, whereas BANC strongly recommends the use of the two checklists (Pattinson, 2005a). All the four approaches that are being compared in the table do similar routine tests and give similar preventative therapy to the pregnant women except that BANC recommends that in addition calcium be given as part of the preventative therapy. See Table 1.1.

Table 1.1: Comparison between BANC and other approaches to ANC

ELEMENT ASSESSED	APPROACH RECOMMENDED BY SANC	WHO MODEL	FANC	BANC
First visit	First trimester	12 weeks	8-12 weeks	before 20 weeks
Follow up	Monthly till 28 week 2 weekly till 38 week Weekly till delivery	26 weeks 32 weeks 38 weeks	24-26 weeks 32 weeks 36-38 weeks	20 weeks 26 weeks 32 weeks 38 weeks
Interval between follow up visits	Depends upon period of gestation	6 weeks	4-8 weeks	6 weeks
Structure of visits	Routine	Goal oriented	Goal oriented	Goal oriented
Clinic checklist	Not used	One checklist	One checklist	Two checklists first/ follow up
Last Visit at PHC level	40 weeks refer at 41	38 weeks refer at 40	38 weeks refer at 40	38 weeks refer at 40
Routine Tests	RPR, Hb, RH	RPR, Hb, RH, HIV	RPR, Hb, RH, HIV	RPR, Hb, RH, HIV,
Routine preventative therapy	Iron Tetanus toxoid	Iron Tetanus toxoid	Iron Tetanus toxoid	Iron, Tetanus toxoid and calcium
Total visits	12 or more	4-5	4-5	4-5



## **1.4 PROBLEM STATEMENT**

EThekweni Municipality Health Unit has not achieved the target that was set by the National DoH that all PHC facilities that are providing ANC should have implemented BANC programme by the end of 2008. Less than 50% of the facilities have successfully implemented the BANC programme. Some PHC facilities have not yet started at all with the implementation of BANC and are still using the approach that was recommended by SANC. In this approach by SANC, the pregnant woman could have up to 12 ANC visits per pregnancy. The WHO argued that frequent visits are often logically and financially impossible for women to manage and places a burden on the health care system (Mathole et al, 2005). Therefore using this approach could result in the same problem for women and PHC facilities in eThekweni. Other facilities who had started implementing BANC could not sustain the programme due to the challenges that they were experiencing. These facilities had since stopped using the BANC approach and had reverted to the approach that they were previously practising. The previously used approach is the one that is prescribed by the South African Nursing Council (SANC, 1991). This is an approach that is discredited by the WHO stating that it has been modeled on the approaches that are used in developed countries. These approaches have been poorly implemented are ineffective. In these approaches the resources are devoted unnecessarily to women with high risk, thus resulting in women with low risk not receiving optimum care (Villar et al., 2007). Unlike BANC, the approach recommended by SANC does not have BANC checklists, yet the checklists are the tools that assist the midwives to identify and refer accordingly women with high risk factors. The report by the committee for confidential inquiry into maternal death highlights that most avoidable factors that are responsible for maternal deaths could have been avoided through quality ANC (DoH, 2005).

## **1.5 AIM OF THE STUDY**

The aim of the study was to identify the factors that influence successful implementation of BANC programme.

## **1.6 OBJECTIVES OF THE STUDY**

The objectives of the study were to:

- identify facilities that had successfully implemented the BANC programme
- assess the perceptions of health care workers regarding the successful implementation of the BANC programme
- identify factors that influenced the successful implementation of the BANC programme

## **1.7 SIGNIFICANCE OF THE STUDY**

According to the MDGs, South Africa intends to work strongly on reducing maternal and perinatal mortality rates (Department of Health, 2007a). The National DoH has identified BANC as the key implementation strategy for MCWH provision simply because adequate ANC is regarded as the cornerstone for maternal and perinatal care (Department of Health, 2005). It is unlikely that South Africa will be able to achieve its goals to reduce maternal and perinatal mortality rates by 2015. If eThekwini municipality, which is responsible for 60% of the PHC facilities in eThekwini district (one of the biggest districts in KwaZulu-Natal), has failed to implement BANC successfully, then one needs to ask what the situation is in other districts in the country. The researcher believes that if the factors that influence successful implementation of BANC programme are identified and made known to all relevant parties involved in the implementation of BANC, these can be used to strengthen the implementation process and also to sustain the programme. The results of the study would not benefit just eThekwini municipality but the whole district of eThekwini. The results could also be used by policy makers at district, provincial and national levels and could therefore benefit the whole country. The problem of constant high maternal and perinatal mortality rates is a worldwide problem, but is especially prevalent in sub-Saharan countries like Kenya, Ghana, Malawi, and South Africa. BANC and other similar approaches to ANC like FANC and goal directed ANC are all fairly new concepts which these countries are trying to adopt in order to address the problem of maternal and perinatal deaths. To have access to research articles on BANC and other similar approaches to ANC would

also benefit other countries who either wish to adopt the approach or to strengthen their existing ANC approach.

## **1.8 OPERATIONAL DEFINITIONS**

### **1.8.1 Antenatal Care (ANC)**

Antenatal care is the systemic medical supervision of women during pregnancy, this care and supervision is aimed at preserving the physiological aspect of pregnancy and labour and preventing or detecting problems as early as possible. It will also assist health care workers to do all that is pathologically possible to prevent maternal ill-health, injury, maternal mortality, fetal death, infant mortality and morbidity (Haldipur, 2006).

### **1.8.2 Basic Antenatal Care (BANC)**

BANC is the minimum level of ANC that every pregnant woman should receive. The care has been simplified to a bare minimum so that every clinic sister should be able to perform the necessary tests and measures and the programme is supported by detailed system of flow charts that are based on the principles used in the Integrated Management of Childhood illnesses (IMCI) programme. All aspects of the programme have been developed from the best research evidence and only aspects of ANC that have been shown to be effective, have been included (Pattinson, 2005a).

### **1.8.3 Midwife**

A midwife is a licensed health care practitioner who is registered with the South African Nursing Council. He/she has completed a recognized education and training programme to nurture, assist and treat the client, who can be a woman, a neonate or a family, in the process of promoting a health pregnancy, labour and post-partum period. In working with the clients according to prescribed professional codes, they acknowledge them as equal partners (South African Nursing Council, 2001).

#### **1.8.4 Primary Health Care**

Primary Health Care is essential health care based on practical, scientifically sound and socially acceptable methods and technology. It is made universally accessible to individuals and families in the community through their full participation and at a cost that the community and the country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination (World Health Organization, 1978).

#### **1.8.5 Primary Health Care Facility (PHC)**

This is a clinic that provides comprehensive quality health care including promotive, preventive, curative, rehabilitative and palliative services at the level that is below the hospital level (Department of Health, 2001).

#### **1.8.6 Maternal death**

Maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes (World Health Organization, 2010).

### **1.9 CONCLUSION**

This chapter introduced the reader to the background of the study, clarified the concept BANC and also compared BANC to the other approaches to ANC. The chapter has highlighted the problem statement and clarified the purpose of the study. The next chapter will focus on relevant literature that was reviewed in order to gain more insight and understanding and to support the relevance of the study.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

Chapter One has covered the background and rationale for the study. It focussed on differentiating between the various approaches to ANC, and highlighted the problem statement thus creating an understanding why this study had to be done. The literature review chapter covers the various approaches to ANC as used by other countries. It also compares the success of the different countries in the implementation of various approaches to ANC. The chapter also covers general problems encountered when implementing change in organizations.

#### **2.2 GLOBALIZATION TRENDS REGARDING APPROACH TO ANC**

ANC is regarded as a component of routine MCWH services, and is aimed at targeting the population of pregnant women in order to screen and detect early signs of risk factors for diseases. This screening is then followed by timely interventions, with the aspiration of reducing maternal and perinatal mortality and morbidity (Pen-Kekana, Parkhurst, McPake, 2006). The authors further stated that because ANC covers an increasingly multipurpose role, it is one of the most widespread health services with a very high coverage and serves as a means of distribution for other packages like rolling out antiretroviral therapy.

A number of studies have highlighted that quality ANC is the key to reducing maternal and child mortality rates but these studies also showed the importance of limiting the number of scheduled clinic visits to ensure quality ANC (Villar et al., 2007; WHO, 2002; Mathole, Lindmark, Ahlberg, 2005; Department of Health 2007b). Non-attendance of ANC carried an approximately four times increased risk of maternal deaths compared with the general pregnant population (National Department of Health, 2005). On the whole, the analysis done on approaches to ANC has revealed that ANC programmes in

developing countries have been modeled on those in developed countries (World Health Organization, 2003). The author further argues that, when it realized that these programmes had been poorly implemented and largely ineffective, the WHO designed and tested a focused antenatal care package that included only counseling, examinations, and tests that serve an immediate purpose and have a proven health benefit. In their model, the WHO recommended reducing the number of ANC visits to four and provided detailed instructions on how to conduct the four-visit schedule (Briggs and Garner, 2007). According to the WHO, reducing the number of ANC visits has not been found to pose a risk to the health of either mother or baby. The WHO further recommends a classifying form for easy assessment of a woman's eligibility for the basic component, and a checklist of activities that are to be performed each time during the four-visit schedule.

The WHO named this model focused ante natal care (FANC) (World Health Organization, 2001). The WHO justified the fact that FANC took away screening for risk factors because research had discredited the "risk approach," stating that the approach failed to predict which women would go on to develop complications of pregnancy and delivery. FANC included a classifying form to help providers identify women who have conditions requiring treatment and more frequent monitoring and was designed as a job aid for ANC providers. It also included the forms and checklists needed to implement the package and instructions for use. The WHO stated that it may be necessary that, in order to introduce the package into practice, (depending on the country) the national clinical standards and guidelines for ANC should be updated, the pre-service training curricula in ANC and in-service training for ANC providers and their supervisors should be modified, and a thorough assessment and plan for making changes in drugs, equipment, and supplies to implement the package should be carried out (World Health Organization, 2001).

### **2.2.1 APPROACH TO ANC IN AFRICAN COUNTRIES**

The results of the study that was conducted by the Population Council and partners on ANC in Ghana, Kenya and South Africa revealed that a focused approach which also emphasizes quality of care over number of clinic visits was acceptable but could be difficult to implement because of scarce resources and high staff turnover at certain health facilities (World Health Organization, 2002). The WHO further stated that appropriate ANC was identified as the key element of programmes to improve the health of mothers and newborns. The approach to ANC in these countries was referred to as goal directed ANC (JHPIEGO, 2003). According to JHPIEGO, goal-directed ANC involved gathering information in such a way that certain complications are either detected early or ruled out. JHPIEGO also states that collecting information in this way forces the provider to look critically at all of the parameters that are being checked, and to decide if they mean that the woman's pregnancy is evolving normally or that she is experiencing a complication that needs to be managed. JHPIEGO further argues that the quality of ANC could be improved by having goal-directed care, not only because providers process the information they gather, but also because this way of gathering information facilitates efficient clinical decision making. Goal-directed interventions give a framework for effective ANC disease detection, counseling and health promotion, birth preparedness and complication readiness (Fortney, 1995).

In their article about the WHO issuing guidance on a new model of ANC, Villar et al. (2007) referred to the WHO approach as goal-oriented or FANC approach. The model focused on reducing the number of required ANC visits to four and doing only procedures and tests that have shown to improve maternal outcomes. This is similar to the approach to BANC as described by Pattinson (2005a). The main objective of ANC is to deliver effective appropriate screening, preventive or treatment interventions. The actual number of visits should therefore be the result of how these effective interventions can be timeously delivered during pregnancy (Villar et al., 2007). The authors further argue that these effective interventions can be provided within fewer

visits than was previously recommended without any clinically important increase in the risk of adverse outcomes.

In a study of nurses and midwives in rural Zimbabwe which investigated the dilemmas and paradoxes in providing and changing ANC, caregivers implied that they designed their own ways of coping with situations (Mathole et al., 2005). One participant from this Zimbabwean study commented that one strategy used by nurses and midwives to ease pressure was to ignore the government directives about the enrolled nursing assistants only being permitted to perform certain procedures, and let them perform the prohibited tasks. If they were accused of doing things incorrectly, they would work as usual and pretend they had not seen the new regulations. Another area of concern that the participants in the rural Zimbabwe study described as interfering with their performance, was the large number of programmes implemented simultaneously. Each programme would have its own supervisor who came to the health care centre at different times to monitor implementation. They stated that the already overburdened staff was not only expected to answer questions but also to attend separate workshops on each programme. In these cases the participants stated that they were caught between the demands of the parallel programmes and the requirements of the government's core programmes on which their own performance appraisal was based (Mathole et al., 2005).

Langer et al., (2002) conducted a study in four developing countries, namely Argentina, Cuba, Saudi Arabia and Thailand. They concluded that policy makers and programme managers should realize that the views of the women are the main determinant in acceptance of and sustained use of services. In addition to this, these authors stated that because health professionals are conscious players in the process of change, and because they contributed to improving providers' commitment to clinical work, their perspectives needed careful evaluation before and during the introduction of new care models into institutional protocols.



## **2.3 ANC SERVICES IN SOUTH AFRICA**

The three South African reports, namely the Saving Mothers from the NCCEMD, Saving Babies from Perinatal Problem Identification Programme (PIIP) and Saving Children from Child Problem Identification Programme (PIP) all offer a review of the healthcare provided to the mothers, babies and children in South Africa (Bradshaw et al., 2008).

The authors highlighted the following statistics for South Africa: in any given year

- 1,600 mothers die due to complications of pregnancy and childbirth
- 20,000 babies are stillborn
- 22,000 die before they reach one month of age
- 75,000 children die before their fifth birthday

The findings of these reports highlighted avoidable causes of these thousands of deaths and made recommendations to strengthen the quality of care provided to mothers, babies and children at the time when they need it the most. Provision of quality ANC using BANC approach is listed amongst the recommendations. The authors further emphasized that addressing the health challenges should involve strengthening the provision of health care packages within the continuum of care and recognizing that the effectiveness of each package is dependent on whether it provides high-impact, evidence-based intervention and also on the coverage and quality of the service. ANC attendance was given as an example where the authors stated that attending ANC only once at any time during the pregnancy would have much less effect than a first visit before 20 weeks and attending at least another four times at appropriate intervals with high-impact interventions included in each visit. According to the authors, training institutions and trainers should play a role in saving the lives of mothers, babies and children by amongst other strategies, reviewing and updating pre-service and in-service training for health care providers to incorporate the latest acceptable guidelines for the national MNCWH.

There is a growing global commitment to reducing the unacceptably high maternal and perinatal death rates in developing countries. With this in mind the National DoH included maternal health care amongst its priority reproductive health in South Africa

(Department of Health, 2002). If this goal is going to be achieved in South Africa, there must be national cooperation to assess the causes of maternal deaths and to provide guidelines regarding maternity care, thereby ensuring that quality health services are rendered. South Africa is one of the countries with a persistently high maternal and perinatal mortality rate which it is struggling to reduce (Department of Health, 2005). According to the *Saving Babies* report, the Perinatal Problem Identification Programme committee found that there are more stillbirths than neonatal deaths and this is the reflection of poor quality ANC (Department of Health, 2005). Many interventions for preventing stillbirths can be delivered through and alongside existing maternal, newborn and child health programmes (Zulfiqar et al., 2010). The authors recommended that the promotion of quality ANC and efficient referral system should be promoted as a platform for improving coverage of evidence-based interventions towards saving babies and reducing the stillbirth rate. The quality of health care that a pregnant woman receives during ANC has an impact on the health of the woman and an impact on the outcome of pregnancy (Snyman, 2007). The author further stated that there were many factors in PHC which could impact on and influence the quality of ANC. One example was that when the comprehensive approach to PHC services was implemented, it stated that the nurses who were working in PHC, but who did not have midwifery training, were expected to provide ANC services. According to the provision of the National DoH, every nurse was expected to provide all services as indicated in the PHC comprehensive package of services.

One of the major areas of substandard care identified in South Africa was the poor initial assessment of patients during ANC (Department of Health, 2001). The health care workers are trained in the traditional method of history taking, clinical examination and special investigations when assessing patients. However it is often difficult to assimilate the multiple abnormalities found and to formulate a management plan in a very ill patient with multiple organ disease, the very type of cases described in the maternity mortality reports (Department of Health, 2001). The National DoH decreed that all health facilities that are providing ANC must use the BANC approach and provided all provinces with training and guidelines on BANC with the understanding that BANC

makes the analysis and grouping of women according to the risk factors much easier (Pattinson, 2005a). The implementation of BANC is seen as a positive measure to improve the quality of ANC in PHC facilities (Snyman, 2007). The author stated that BANC quality improvement package is designed to assist clinical management and decision making in ANC at PHC level. The author conducted a qualitative study to assess the effectiveness of the BANC package in improving good quality ANC at PHC facilities. The results of the study revealed that with implementation of BANC package, the organizational changes required at facility level for improvement of ANC were facilitated with tools like the integrated flow charts for client management, referral protocols and checklists. The results also revealed that although the improvement of the quality of ANC was small, a significant continuous improvement was noted in the experimental group regarding interpretation and decision making. This could potentially have a positive impact on the outcome of pregnancy (Snyman, 2007).

## **2.4 ANC SERVICES IN KZN**

According to the KZN DoH, there are protocols that are used to diagnose the risk status of a pregnant woman so that correct decisions regarding ANC and delivery are made and appropriate referral is done (KwaZulu-Natal DoH, 1998). The DoH stated further that the approach to ANC should be goal directed and recommended that the focus at each visit should be on five goals which are:

- giving of health education
- conducting risk assessment
- doing screening tests
- giving treatment
- arranging follow up

This approach was adopted in KZN before the introduction of the WHO model of care and BANC in South Africa. It is worth noting that the emphasis in KZN was already focused/ goal oriented care and there was the feeling that many ANC visits were not necessary. Pattinson (2005a) suggested that all facilities where women present should

have the means to test women for possible pregnancy and that an option to keep or terminate the pregnancy should be offered to all women once pregnancy has been diagnosed. Pattinson further stated that the first ANC consultation should be carried out immediately at the point and place where pregnancy is diagnosed thus BANC requires that all facilities where women present should provide ANC services. The author further argued that an unnecessary number of visits wasted time for both the patient and the health care worker and therefore recommended that ANC visits should be limited to four to five visits for each low risk pregnancy. Over burdening the health care workers meant that patients often received low standards of care as doctors and nurses rushed through long queues with no time to speak to anyone. The KZN DoH recommended that what was needed to improve the situation was to reduce the number of unnecessary visits and advised the normal ANC low risk clients can receive optimal care in 4-5 ANC visits (KwaZulu-Natal Department of Health, 1998).

BANC was included in the list of strategies provided by the DoH to achieve MDG 4 and 5 which are to reduce perinatal deaths and improve maternal health by 2015 (Department of Health, 2007a). ANC can screen for, detect and thus prevent many maternal complications that may occur before childbirth and can significantly improve the outcome of the unborn infant (Pattinson, 2005a). Pattinson recommended that every site where pregnant women make contact with health services should be utilized because if all PHC facilities are providing BANC. ANC could be started as soon as the pregnancy is diagnosed. Pattinson also stated that if a pregnant woman was brought into the system early, her health problem could be detected and managed or controlled early and treatment then had a greater chance of success (Pattinson, 2005a).

The BANC programme demands that facilities undergo a process of change. Resistance to change is almost inevitable when trying to implement a new programme (Victoria Quality Council, 2006). The council further stated that even healthy changes involve discomfort, uncertainty and conflict and suggested that in order to minimize resistance, a careful and phased approach to change is required and an open trusting environment must be cultivated. The author further suggested that it was essential for health services to implement system change in response to risk areas identified by

reviewing adverse events in order to achieve continuous quality improvement and the delivery of safe quality care. Strategies that may improve the likelihood of success of the change process are engaging others, communication, motivation, sharing results, evaluation, and using a pilot industry watching for resistance. Zegart (2011) states that implementing change and improving organizational performance is never easy because several challenges may confront the organization and hinder progress. The author highlighted that change may require new ways of doing things; the ability to harness new practices and jettison older, less effective ones. The importance of perfect rational decision making was stressed so that all relevant options are sorted, and the best decisions are then made.

BANC is similar to FANC, reduced visit approach and goal directed ANC. Literature indicates that for a successful introduction of a new package of service into practice, it may be necessary that several adjustments are made to the current practices. The national clinical standards and guidelines need to be reviewed, updated or renewed; pre-service training curricula, in-service training for service providers and their supervisors must be modified. A thorough assessment of and plan for making changes in drugs, equipment, and supplies must be carried out before change is implemented. Successful implementation of change may be hindered by scarce resources and staff turnover (Victoria Quality Council, 2006).

## **2.5 CONCLUSION**

In this chapter, several important lessons were gathered which need to be considered when examining the factors that may affect or influence the implementation of BANC. Also factors that had affected other similar approaches to BANC were examined. The next chapter will focus on the various methodologies and approaches that were undertaken in sampling data collection and data analysis.

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.1 INTRODUCTION**

The previous chapter focused on literature review with the aim of establishing the relevance of the study by comparing it to the previously researched information. This chapter describes the research methodology adopted for the study.

#### **3.2 RESEARCH DESIGN**

A non-experimental descriptive quantitative design was used to identify the factors that influenced successful implementation of BANC programme.

#### **3.3 STUDY SETTING**

The study was conducted in the fixed PHC facilities of eThekweni Municipality. The mobile clinics and health posts were excluded from the study because the majority of these did not provide ANC services. The few that were providing ANC services were providing it on a very small scale. In order to identify the facilities that were implementing BANC programme a survey was conducted for all the 59 fixed Municipality PHC. This was followed by record reviews which were conducted only in the facilities that were implementing BANC. These reviews made it possible to identify those facilities that had successfully implemented BANC programme. Data was collected from midwives who were working in ANC. Only the midwives who were working in the facilities that had successfully implemented the programme were included in the study.

### **3.4 AREA OF THE STUDY**

EThekweni District is one of the eleven districts of KZN in South Africa. It consists of 2297km<sup>2</sup>, of which 36% is rural, 29% is peri-urban and 35% is urban. It is the largest of the eleven districts in KZN with the population of just over 3 million (Department of Health, 2009a). This is more than one third of the population of the entire KZN which stands at 9,9 million. Females make up 51,94% of the total population. A total of 58,68% of the population (male and females combined) is of reproductive age which is between 15 to 49 years. EThekweni Municipality is the second largest metropolitan council in South Africa and it is sub-divided into three sub-Districts: the North, South and West sub-districts. Its boundaries extend to Umkomaas in the South where it meets with uGu district, and includes some tribal areas in Umbumbulu. Cato Ridge lies on the Western boundary where it meets with UMgungundlovu District and Tongaat lies in the North. The northern boundary moves inland to Ndwedwe where it meets with iLembe District. In the East is the Indian Ocean. The provision of PHC services in eThekweni district is shared between the KZNPA and eThekweni Municipality, following a service level agreement that exists between the two authorities. There are 100 facilities in eThekweni district, of which 59 % (59 facilities) belong to the Municipality and the other 41% (41 facilities) fall under the KZNPA. The PHC facilities are distributed amongst the sub-districts so that there are 29 fixed Municipality PHC facilities in the South sub-district, 18 in the North and 13 in the West sub-district (Department of Health, 2010a). The study was conducted in the Municipality fixed PHC facilities

Figure 3.1 Map showing the eThekweni Municipality PHC facilities and boundaries (Department of Health, 2009a)

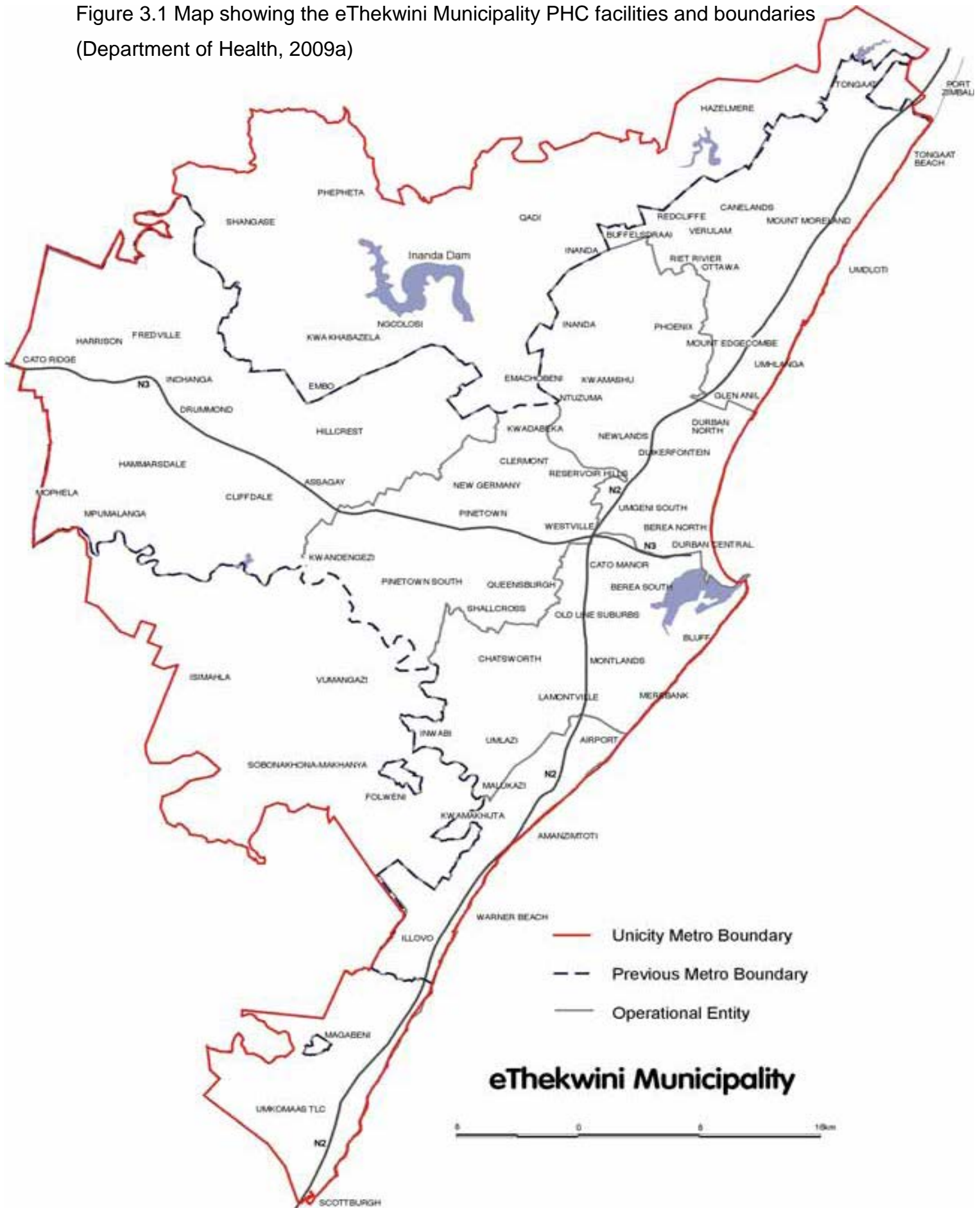
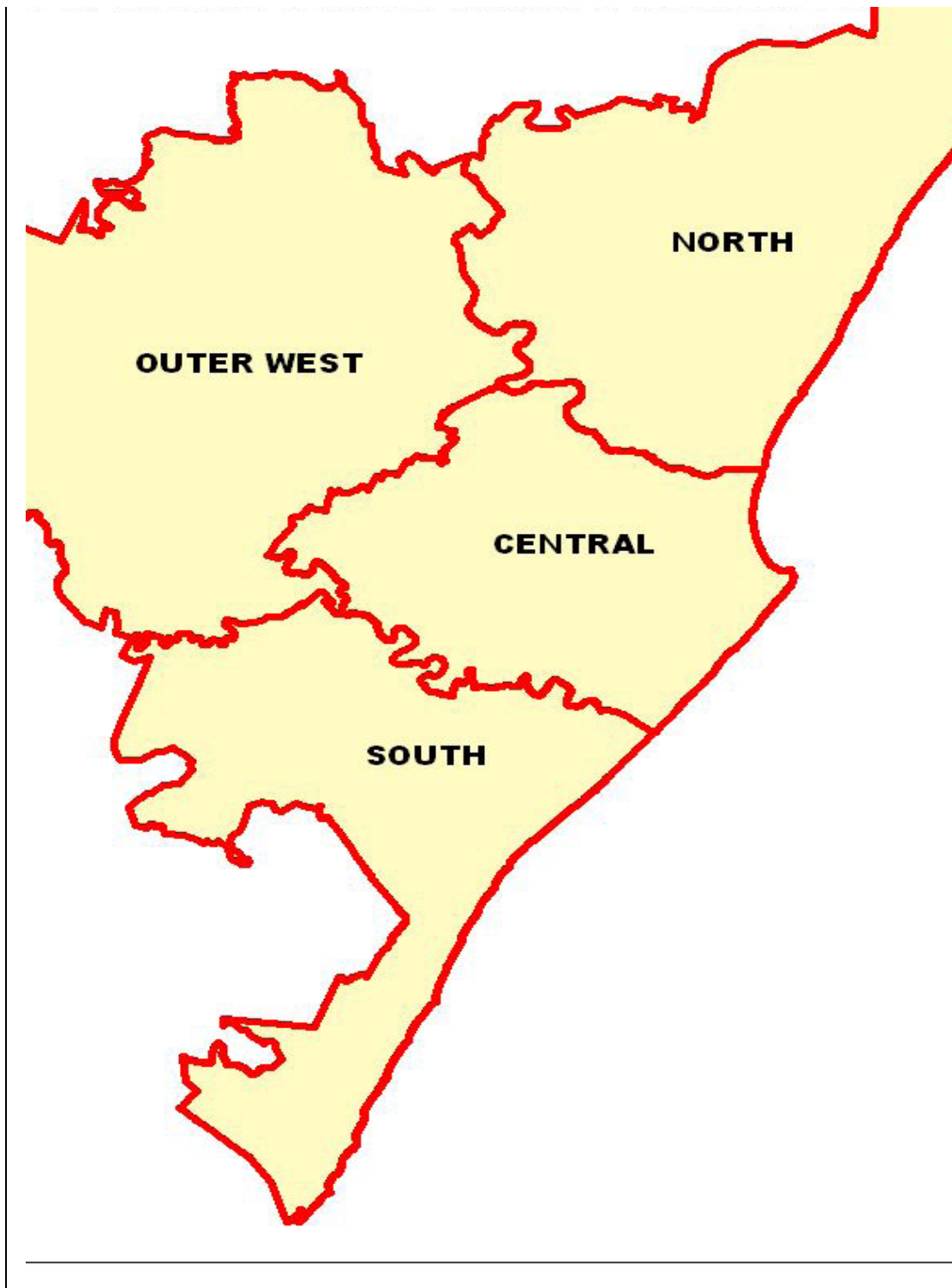




Figure 3.2 Map showing the eThekweni Municipality Sub Districts  
(Department of Health, 2010a)



### **3.5 SAMPLING AND SAMPLING TECHNIQUE**

A four phase sampling technique was used to identify the sample:

#### **3.5.1 Phase One**

This phase involved a survey of all the 59 municipal PHC facilities in order to identify the facilities that were implementing BANC. A questionnaire with three questions was used for this purpose. The questions were:

1. Is your facility was providing ANC services?
2. Has your facility started implementing BANC?
3. Are you using BANC checklists during ANC?

Inclusion criteria

Only the following facilities were included:

- facilities that were providing ANC services
- facilities that were implementing BANC

Exclusion criteria

All the following facilities were excluded:

- facilities that were not providing ANC services
- facilities that were not implementing BANC

#### **3.5.2 Phase Two**

This phase involved sampling the PHC facilities that had successfully implemented the programme from the three sub-districts. In this phase, a cluster sampling method was used to identify the facilities that had successfully implemented BANC programme. Polit and Beck (2008: 749) define cluster sampling as a form of sampling in which large groupings are selected first, with successive sub-sampling of smaller units. The researcher began by identifying those facilities that had successfully implemented the BANC programme and these were grouped together. Thereafter, the facilities were randomly selected from the group of facilities that were identified to have successfully

implemented BANC. There were 27 facilities that were using BANC checklists from which a total of 18 (67%) facilities were randomly selected to be included in the study.

#### **Inclusion criteria**

- PHC facilities that had successfully implemented BANC programme.

#### **Exclusion criteria**

- PHC facilities that had not managed to successfully implement BANC programme.

### **3.5.3 Phase Three**

Retrospective record review was conducted during this phase. Purposive sampling of records from 2008 to 2010 was done in all the facilities that had implemented BANC and were using BANC checklists for first and follow up ANC visits. This was done to identify and confirm those facilities that had successfully implemented the programme. In each facility twenty BANC checklists for the clients that previously attended ANC and had given birth were randomly selected and reviewed.

#### **Inclusion criteria**

- utilization of the standard BANC checklists during each ANC visit

#### **Exclusion criteria**

- non-utilization of standard BANC checklists

### **3.5.4 Phase Four**

A convenient sampling of all midwives who agreed to take part in the study was done. Each Municipal PHC facility had between 2 and 6 midwives in its staff complement. A minimum of two midwives were included from each facility.

#### **Inclusion criteria for midwives**

- Midwives that had worked in ANC for one year and longer

- Midwives who were working in the PHC facilities that had successfully implemented BANC programme were included.

### **Exclusion criteria for midwives**

- Midwives that had worked in ANC for less than a year
- Midwives who were working in PHC facilities that had not managed to successfully implement BANC programme.

## **3.6 PILOT STUDY**

A pilot study is conducted on a lesser version of the proposed study to refine the methodology or the data collection process. All data collection instruments were piloted to test for reliability and validity prior to the commencement of data collection. A pilot study was conducted on six midwives from the clinics that had successfully implemented BANC programme. The results of the pilot study were analyzed by the statistician to determine whether the construct validity was appropriate for statistical purposes. The results of the pilot study revealed that the participants had a clear understanding of the questions. Minimal changes that were made to the questionnaire and these did not affect the proposed study. The pilot participant data were excluded from the final data set.

## **3.7 DATA COLLECTION**

Data collection was done in two phases, namely:

### **3.7.1 Phase One**

The first phase involved record review to identify the facilities that had successfully implemented BANC programme. A checklist adapted from the BANC National DoH checklist for ANC record review was used to collect data. (Appendix 6).

### **3.7.2 Phase Two**

The purpose of this phase was to identify the factors that influenced the successful implementation of BANC programme and to assess midwives' attitudes towards and perceptions of the BANC programme. A self-administered questionnaire was used to collect data from the midwives (Appendix 7). A questionnaire is a printed self-report form designated to elicit information that can be obtained from a subject's written response (Burns and Grove, 2009: 406). A closed-ended questionnaire with a limited number of open-ended questions was used to determine the factors that influence successful implementation of BANC programme as well as to assess midwives' attitudes and perceptions towards BANC programme. The questionnaire was in line with the objectives of the study. A research assistant was used to administer and collect the questionnaires in order to ensure that the midwives were not intimidated by the presence of the researcher who was co-coordinating the MCWH programme for eThekweni Municipality(See appendix:8).

The questionnaire was divided into three sections:

- Section A: Demographics
- Section B: Factors influencing successful implementation of BANC programme
- Section C: Midwives' attitudes towards and perceptions of BANC programme

## **3.8 DATA ANALYSIS**

The data from the questionnaire was captured and subsequently analyzed using the latest version of SPSS. Descriptive statistics such as proportions, median, mode and inter-quartile range were used to summarize the data. Bar graphs and pie charts were used to present the results. The scores for knowledge of and attitude towards BANC were calculated from the responses. The Kruskal Wallis test was used to assess how the knowledge and attitude of nurses differed by years of experience. The Pearson Chi-square test was used to test for association between BANC training and implementation of the programme.

### **3.9 VALIDITY AND RELIABILITY**

Polit and Beck, (2008) describe reliability as the accuracy and consistency of information that is obtained in a study and is most often associated with the methods that are used to measure the research variables. Reliability was ensured by conducting a pilot study on six midwives from the clinics that had successfully implemented BANC programme. The results of the pilot study were analyzed by the statistician to determine whether the construct validity was appropriate for statistical purposes. The results of the pilot study revealed that the participants had a clear understanding of the questions. There were minimal changes to the questionnaire and these did not affect the proposed study. Reliability was also ensured by collecting data from the clinics that had successfully implemented BANC programme. This also ensured content validity of the study in that the findings are unbiased and well-grounded since the information was gathered from participants who were physically involved in BANC programme. The validity of a questionnaire measures the concept in question and confirms that this concept is accurately measured (De Vos et al., 2009: 160). Content validity examines the extent to which the questionnaire includes all the major changes relevant to the construct being measured (Burns and Grove, 2009: 381). Face validity verifies that the tool looked like it was valid and gave the appearance of measuring what it was supposed to measure (Burns and Grove, 2009: 381). The questionnaire was tested for face validity by means of a pilot study. The questionnaire was structured to obtain the required information by using a document which appeared professional and uncomplicated to complete.

### **3.10 ETHICAL CONSIDERATION**

Procedures were followed to ensure that the researcher complied with the fundamental principles for protecting the study participants. A trained research assistant was used to administer and collect the questionnaires. This ensured that the midwives were not intimidated by the presence of the researcher who was coordinating the MCWH programme for eThekweni Municipality. All the participants were required to sign an informed consent (Appendix 5). The participants were given a choice not to participate in the study and also to withdraw from the study at any point if they wished to do so.

The questionnaires were identified only by numbers so there was no link between the participants' identity and the information gathered. The study was only commenced after the study design, procedures and questionnaires had been approved by Durban University of Technology Faculty Research Committee and only when the eThekweni Municipality Health Research Unit had approved that the study be conducted in their PHC facilities. (Appendices 1, 3 and 4)

### **3.11 CONCLUSION**

This chapter on methodology has given a detailed outline of all the phases of sampling, data collection and data analysis. The next chapter will report on the presentation of results.

## **CHAPTER 4**

### **PRESENTATION OF RESULTS**

#### **4.1 INTRODUCTION**

The previous chapter outlined the methodology adopted in conducting the study. It was indicated that data collection was done in four phases which started with the identification of facilities that have implemented BANC programme, followed by the identification of those facilities that have successfully implemented BANC programme. Record review was done in the facilities that had implemented BANC programme to confirm which had successfully implemented BANC. The final phase involved data collection from the midwives. In this phase, questionnaires were used to identify the factors that could have influenced the successful implementation of BANC programme and also to assess the midwives' perceptions of BANC programme. This chapter presents the findings that were gathered from data analysis.

#### **4.2 IDENTIFICATION OF FACILITIES THAT WERE IMPLEMENTING BANC**

A survey of all the 59 municipal PHC facilities was done. A three questioned questionnaire was used for this purpose. The questions were:

First question

Does your facility provide ANC services? If the answer was YES, the second question was asked and if it was NO, then the facility was excluded from the study.

Second Question

Have you started to implement BANC? If the answer was YES, the next question was asked and if it was NO, then the clinic was excluded from the study.

Third question

Do you use BANC checklists? If the answer was YES, the clinic was included in the study and if it was NO, then the facility was excluded



Out of 59 (100%) eThekweni municipal PHC facilities that were included in the survey, 57 (97%) facilities were conducting ANC services. The other two facilities were excluded after the first question because one facility was not providing ANC services at all but was only specializing in communicable diseases. The running of PHC services in the second facility were being shared between two authorities, the Municipal and Provincial authorities. ANC services were only provided by the Provincial authority and not by the Municipality. This facility was also excluded from the study because the focus of the study was on the Municipal PHC facilities.

Only the 57 facilities that had reported to be providing ANC services were asked the second question. The findings of the second questions were that 39 facilities were implementing BANC and the other 18 facilities were not using BANC approach (although they were providing ANC) and were therefore excluded from the study. It was only to the 39 PHC facilities that had reported to be implementing BANC that the third question was asked. The findings for the third question showed that out of the 39 facilities that were implementing BANC, ten facilities were not using BANC checklists and two had stopped using the checklist because they were out of stock. These 12 facilities that were not using BANC checklists were then excluded from the study.

There were 27 facilities that were using BANC checklists from which the sample of the facilities to be included in the study was obtained. A total of 18 (67%) of these facilities were randomly selected.

The selected facilities were as follows:

- nine facilities from the South sub district
- five from the North and
- four from the West sub district.

### 4.3 RECORD REVIEW

A random sample of 20 BANC checklists was reviewed from each of the 18 PHC facilities that were included into the study. A total of 360 BANC checklists that belonged to the ANC clients that had completed their ANC and had given birth were reviewed. The findings of record review were as follows:

Table 4.1: The use of checklists classifying (first) visit

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	360	100,0	100,0	100,0
No	00,0	00,0	00,0	100,0
Total	360	100,0	100,0	100,0

The clinic checklists were being used in 100% of the facilities that were included in the study. These results were in line with the inclusion criteria that only the facilities where BANC checklists were used were to be included in the study.

Table 4.2: Filling of checklists classifying (first) visit

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	249	69,2	69,2	69,2
No	111	30,8	30,8	100,0
Total	360	100,0	100,0	100,0

The total of 249 (69,2%) checklists classifying first visit were completely filled, however there were still 111 (30,8%) checklists that were not completely filled. It was noted that whilst 100% of facilities as indicated in Table 4.2 were using BANC checklists, not all

facilities were filling in the checklists completely. However, more than 50% were completing the checklists correctly.

Table 4.3: Indication on the checklist whether the woman is eligible for BANC (with Yes or No)

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	246	68,3	68,3	68,3
No	114	31,7	31,7	100,0
Total	360	100,0	100,0	100,0

BANC requires that it should be indicated on the checklist whether the woman is eligible for BANC or not by ticking either YES or NO. Of the 360 checklists that were analyzed 246 (68,3%) checklists had this indicated but it was missing on the 114 (31,7%) checklists.

Table 4.4: Doing the First visit on or before the woman was 20 weeks pregnant.

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	273	75,8	75,8	75,8
No	87	24,2	24,2	100,0
Total	360	100,0	100,0	100,0

On 273 (75,8%) checklists it was recorded that the first ANC visit was done on or before the woman was 20 weeks pregnant. In the other 87 (24,2%) checklists the first visit was done after the woman was beyond 20 weeks pregnant.

Table 4.5: Sticker to indicate whether client is eligible for BANC

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	140	38,9	38,9	38,9
No	220	61,1	61,1	100,0
Total	360	100,0	100,0	100,0

The results of this study revealed that 140 (38,9%) checklists had a sticker on them to indicate whether the client was eligible for BANC or not. The majority of the checklists 220 (61,1%) did not have the sticker. It was noted that although the sticker was not used in most of the checklists, according to Table 4.3, in 68,3% of the checklists it was indicated somehow whether the woman was eligible for BANC or not.

Table 4.6: Filling of Clinic checklist-classifying( follow up)

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	264	73,3	73,3	73,3
No	96	26,7	26,7	100,0
Total	360	100,0	100,0	100,0

There were 264 (73,3%) checklists that were completely filled and the other 96 (26,7%) had some gaps in them. It was noted that although both first and follow up visit checklists were filled correctly by the majority of the facilities, a bigger proportion (73,3%) of facilities were filling the follow up checklist correctly compared to the first visit checklist (69,2%).

Table 4.7: Scheduled visits recorded on the checklist

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	146	40,6	40,6	40,6
No	214	59,4	59,4	100,0
Total	360	100,0	100,0	100,0

On 146 checklists (40,6%) that a minimum of four to five scheduled ANC visits were recorded. The other 214 (59,4%) had more than five visits recorded as scheduled visits.

Table 4.8: 20 weeks follow up visit

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	218	60, 6	60, 6	60, 6
No	142	39,4	39,4	100,0
Total	360	100,0	100,0	100,0

The follow up visit was recorded in 218 (60,6%) checklists to have been done at 20 weeks and the other 142 (39,4%) checklist had the follow up visit not restricted to when the woman was 20 weeks pregnant.

Table 4.9: 26 weeks follow up visit

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	192	53,3	53,3	53,3
No	168	46,7	46,7	100,0
Total	360	100,0	100,0	100,0

The follow up visit was recorded in 192 (53,3%) checklists to have been done at 26 weeks and the other 168 (46,7%) checklists had the follow up visit on varying dates, not restricted to when the woman was 26 weeks pregnant.

Table4.10: 32 weeks follows up visit

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	172	47,8	47,8	47,8
No	188	52,2	52,2	100,0
Total	360	100,0	100,0	100,0

The follow up visit was recorded in 172 (47,8%) checklists to have been done at 32 weeks and the other 188 (52,2%) checklist had the follow up visit on varying dates, not restricted to when the woman was 32 weeks pregnant.

Table 4.11: 38 weeks follow up visit

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	123	34,2	34,2	34,2
No	237	65,8	65,8	100,0
Total	360	100,0	100,0	100,0

The follow up visit was recorded, in 123 (34,2%) checklists, to have been done at 38 weeks and on the other 237 (65,8%) checklists the visit was not restricted to when the woman was 38 weeks pregnant. According to the study results there was a constant decline in the correct timing of scheduled subsequent visits. The study further revealed that timing of the 20 week visit was done correctly for 218 (60,6%) of the cases, for the 26 week visit it was 192 (53,3%), for the 32 week visit it was 172 (47,8%) and for the 38 week visit it had dropped to 123 (34,2%).

Table 4.12: Record of ANC visits after 38 weeks gestation

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	105	29,2	29,2	29,2
No	255	70,8	70,8	100,0
Total	360	100,0	100,0	100,0

There were further follow up visits that were recorded in 105 (29,2%) checklists to have been done after the women were beyond 38 weeks pregnant and the other 255 (70,8%) checklist reflected that there were no further clinic visits that were done beyond 38 weeks.

Table4.13: Appointment to attend the hospital if client had not given birth by 40 weeks

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	84	23,3	23,3	23,3
No	276	76,7	76,7	100,0
Total	360	100,0	100,0	100,0

In 84 (23,3%) checklists, there was an indication that the clients were given appointments to attend the ANC in hospital if they had not given birth by 40 weeks. However, this was not indicated in 276 (76,7%) checklists. These findings contradicted the findings in Table 4.12 above which revealed that it was only in 105 (29,2%) checklists was an ANC visit recorded to have been done after the client was 38 weeks pregnant. If it was only in just 84 (23,3%) checklists where it was indicated that the clients were given appointments to attend the ANC in hospital, it would have been expected that more clients were done ANC visit after 38 weeks.

Table 4.14: Record of Additional ANC visits

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	219	60,8	60,8	60,8
No	141	39,2	39,2	100,0
Total	360	100,0	100,0	100,0

Additional visits were recorded in the appropriate column in 219 (60,8%) of the checklist. In the other 141 (39,2%) it was either there were no additional visits recorded at all or the additional visits were recorded as scheduled visits thus supporting the findings in Table 4.7 above where a total of 214 (59,4), had more than a minimum of four to five scheduled visits recorded.

Table 4.15: Hb level checked at booking

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	315	87,5	88,0	88,0
No	43	11,9	12,0	100,0
Total	358	99,4	100,0	100,0
Missing System	2	0,6	0,6	
Total	360	100,0	100,0	100,0

It was recorded in 315 (87,5%) checklists that the Hb level was checked at booking. There were 43 (11,9%) checklists which had this column blank which then created an assumption that the Hb level was not checked at booking for these clients



Table 4.16: Hb check at 32 weeks

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	104	28,9	28,9	28,9
No	256	71,1	71,1	100,0
Total	360	100,0	100,0	100,0

Only 104 (28,9%) out of 360 checklists reflected that the Hb level was re-checked at 32 weeks. The other 256 (71,1%) had no indication that this was done.

Table 4.17: Hb check at 38 weeks

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	47	13,1	13,1	13,1
No	313	86,9	86,9	100,0
Total	360	100,0	100,0	100,0

Only 47 (13,1%) out of 360 checklists reflected that the Hb level was re-checked at 38 weeks. The other 313 (86,9%) had no indication that this was done. It was also noted that at 32 weeks and 38 weeks the number of clients for whom the Hb testing was repeated dropped tremendously to 104 (28,9%) at 32 weeks and 47 (13,1%) at 38 weeks.

Table 4.18 RPR test during first visit

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	305	84,7	84,7	84,7
No	55	15,3	15,3	100,0
Total	360	100,0	100,0	100,0

A total of 305 (84,7%) reflected that RPR test was done during first visit. There were 55 (15, 3%) checklists which had no marking in the column for RPR testing.

Table 4.19: RPR test repeated at 38 weeks if the test was negative at first booking

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	91	25,3	25,3	25,3
No	269	74,7	74,7	100,0
Total	360	100,0	100,0	100,0

In 91 (25,3%) checklists the RPR test was repeated at 38 weeks if the test had been negative at first booking. There was no indication in 269 (74,7%) checklists that this was done. These findings represent a drop in the number of clients for whom the RPR test was repeated when they were 38 weeks pregnant. According to Table 4.18 above routine RPR testing was done for 305 (84,7%) clients at their initial visit.

Table 4.20: Client tested for HIV

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	321	89,2	89,2	89,2
No	39	10,8	10,8	100,0
Total	360	100,0	100,0	100,0

There was total of 321 (89, 2%) clients who were tested for HIV, and there were 39 (10, 8%) who were not tested for HIV.

Table 4.21 WHO staging done for HIV positive client

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	81	22,5	22,5	22,5
No	279	77,5	77,5	100,0
Total	360	100,0	100,0	100,0

It was reflected in 81 (22,5%) checklists that WHO clinical staging of the clients attending ANC was done. However, the other 279 (77,5%) checklists reflected that WHO staging was not done. Nevertheless, the findings, as given by the DoH that HIV positivity rate at the time was at 40% it is worth noting that if 321 (89,2%) clients were tested for HIV (see Table 4.20 above) a further probable 128 clients would have tested HIV positive. If WHO clinical staging was done for only 81 clients this means that WHO clinical staging was done for 60% of clients who would have tested positive (60% of 128=81)

Table 4.22: Client issued with calcium supplements

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	252	70,0	70,0	70,0
No	108	30,0	30,0	100,0
Total	360	100,0	100,0	100,0

There were 252 (70,0%) clients who were issued with calcium supplements and 108 (30,0 %) were not given calcium supplements.

Table 4.23: Discussion of delivery plan with client

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	206	57,2	57,2	57,2
No	154	42,8	42,8	100,0
Total	360	100,0	100,0	100,0

The delivery plan was discussed with 206 (57,2%) and not discussed with 154 (42,8 %) clients.

Table 4.24 Counter signing of the checklist at 38 weeks

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	97	26,9	26,9	26,9
No	263	73,1	73,1	100,0
Total	360	100,0	100,0	100,0

Only 97 (26,9%) checklists were counter signed by another midwife at 38 weeks. A further 263 (73,1%) checklists were not counter signed by another midwife.

Table 4.25: Checklist filed according to return dates for the clients

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	252	70,0	70,0	70,0
No	108	30,0	30,0	100,0
Total	360	100,0	100,0	100,0

There were 252 (70,0%) checklists that were filed according to the return dates of the clients. The other 108 (30,0%) checklists were not filed according to this system. It was

either because the facilities were using a different filing system or because the checklists were not filed in any order at all, just stacked.

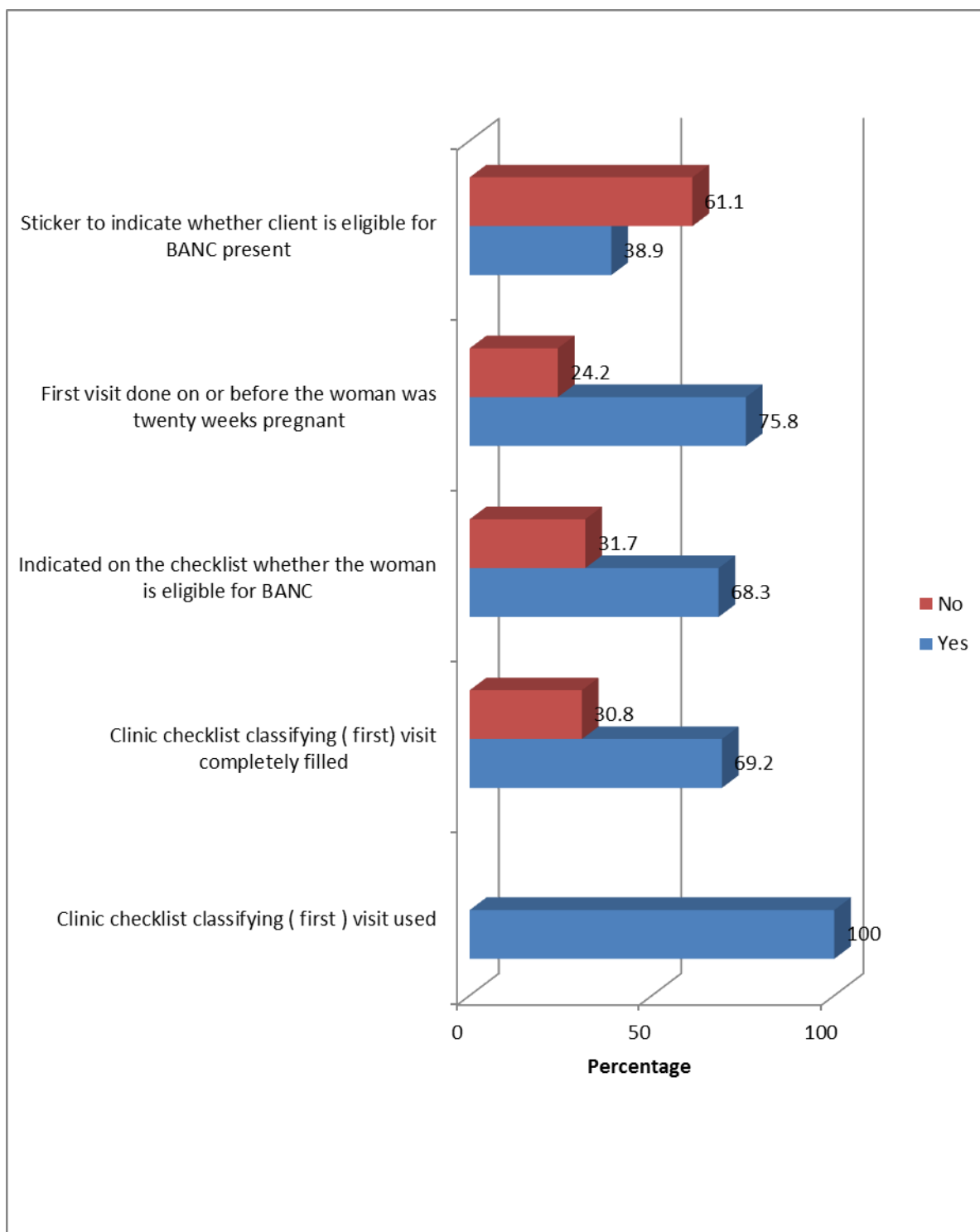


Figure 4.1: Results of Record review

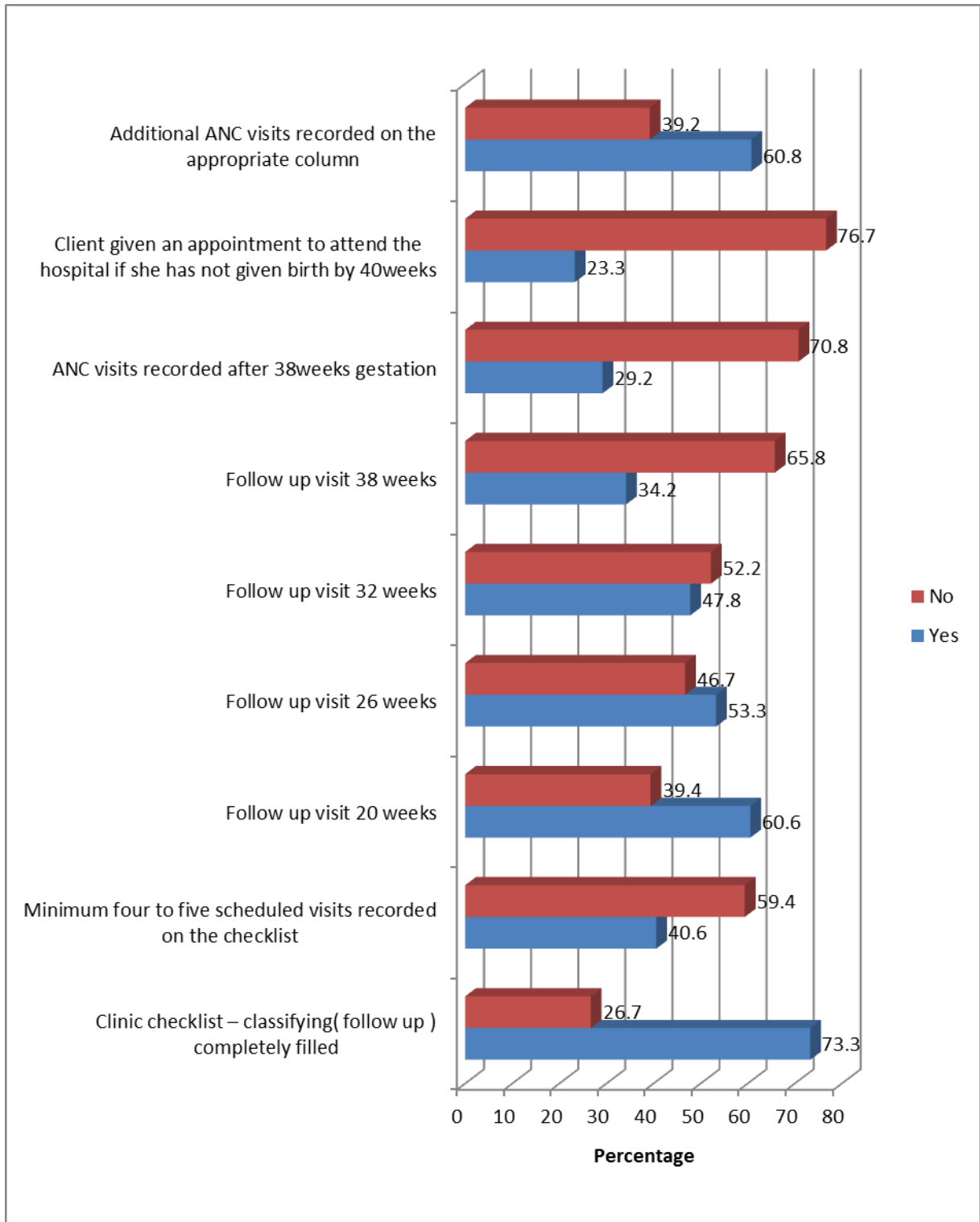


Figure 4.2: Results of record review (continued)

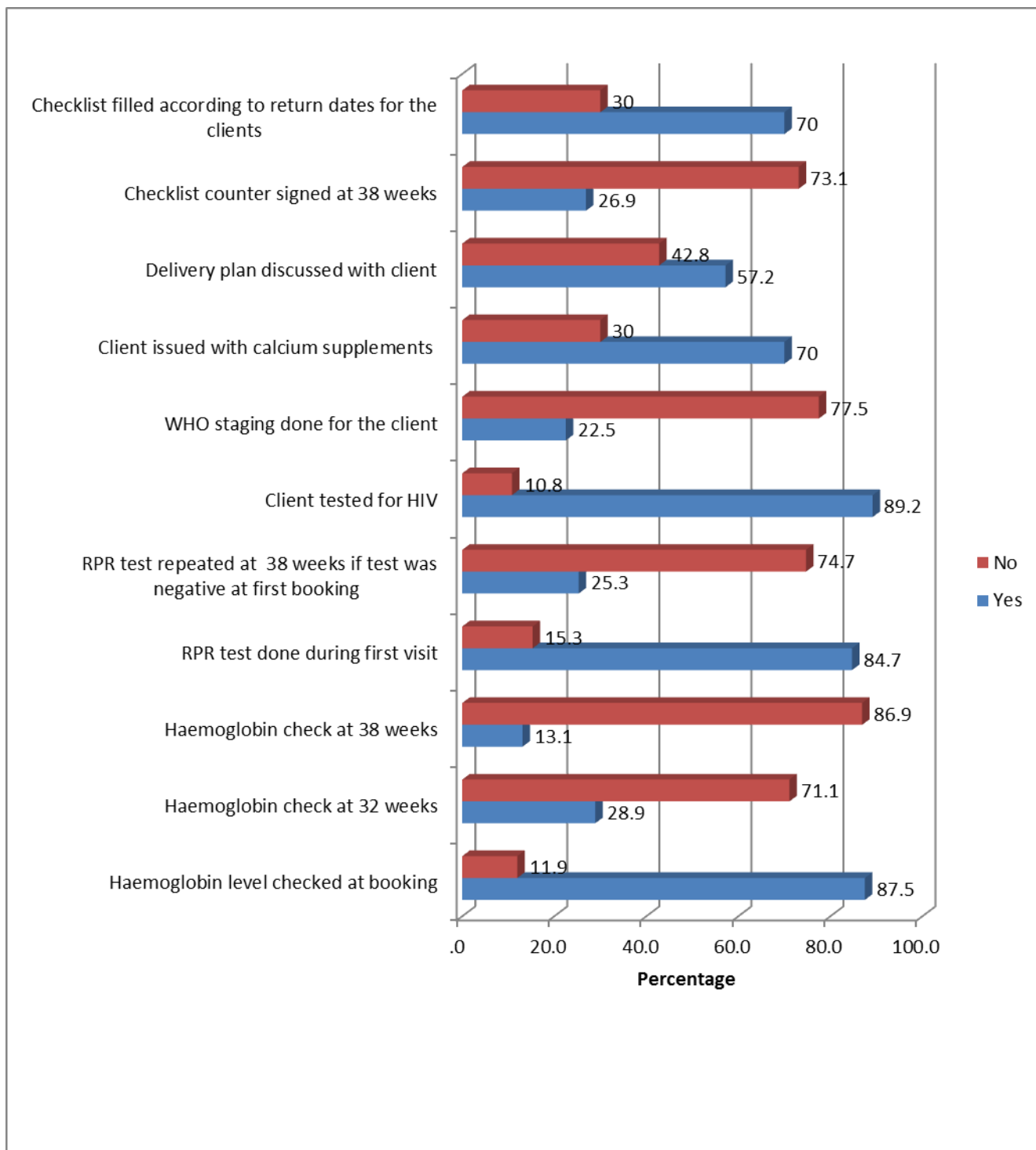


Figure 4.3: Results of record review (continued)

Figures 4.1 to 4.3 reflect the graphical representation of record review that was done in the 18 PHC facilities that had successfully implemented BANC programme. In order to test whether responses 'yes' or 'no' for each item were significant, a chi-square goodness of fit test was done. Significantly ( $p < .0005$ ) more results indicated a 'yes' for most of the elements included in the checklist. This was a positive sign because from these responses the researcher was able to draw up conclusions as reflected. All 18 (100,0%) facilities included in the study were using BANC checklists to classify the first visit and 249 (69,0%) checklists were completely filled in. It was recorded in 273 (75,8%) checklists that the first visit was done on or before the woman was twenty weeks pregnant. There were 246 (68,3%) checklists that had an indication of whether the woman was eligible for BANC or not. Of all the checklists, 264 (73,3%) clinic checklists classifying follow up visit were completely filled in. The scheduled follow up visits were restricted to 20 weeks and 26 weeks in 218 (60,6%) and 192 (53,3%) of the checklists respectively. The checklist had additional ANC visit recorded in the appropriate column in 219 (60,8%) of cases. The follow up visits were recorded according to the return dates of the clients in 252 (70, 0%) checklists. The delivery plan was recorded to have been discussed with the clients in 206 (57,2%) checklists. There were 252 (70,0%) checklists that reflected that Calcium supplements were issued to clients. There 321 (89,2%) clients that were tested for HIV during the first ANC visit. RPR and HB tests were done for 305 (84,7%) and 315 (87,5%) of the clients respectively at first ANC booking.

There were, however, some elements for which more than expected ( $p < .0005$ ) results significantly indicated 'no'. There were 220 (61,1%) checklists that reflected that the facilities were not using the sticker to indicate whether client was eligible for BANC or not. Out of 360 checklists that were analyzed 214 (59,4%) checklists did not reflect that the minimum of four to five scheduled visits were done for the clients. There were 188 (52,2%) checklists for the 32 weeks visit and 273 (65,8%) checklists for the 38 weeks visit that did not reflect that the ANC visits were restricted to these scheduled times for the clients. BANC required that no ANC visit should be conducted at PHC level after 38 weeks, but the client should be given an appointment and instructions to attend ANC in



hospital if she has not given birth by 40 weeks (Pattinson, 2005a). There were 255 (70,8 %) checklists which did not have an ANC visit recorded after 38 weeks gestation. There was no record in 276 (76,7%) checklists that the clients were given an appointment to attend ANC in the hospital if they had not given birth by the time they reached 40 weeks pregnant. The repeating of routine tests such as Hb at 33 and 38 weeks and RPR test at 38 weeks if test was negative at first booking was not done for 256 (71,1%) and 313 (74,7%) of the clients respectively. There were 263 (73,1%) checklists that were not counter signed by the second midwife at the 38 weeks ANC visit. The follow up ANC visits that were supposed to be scheduled at 32 and 38 weeks period of gestation were not recorded in 188 (52,2%) and 237 (65,8%) of the checklists respectively.

## 4.4 MIDWIVES' QUESTIONNAIRE

### 4.4.1 Demographic data

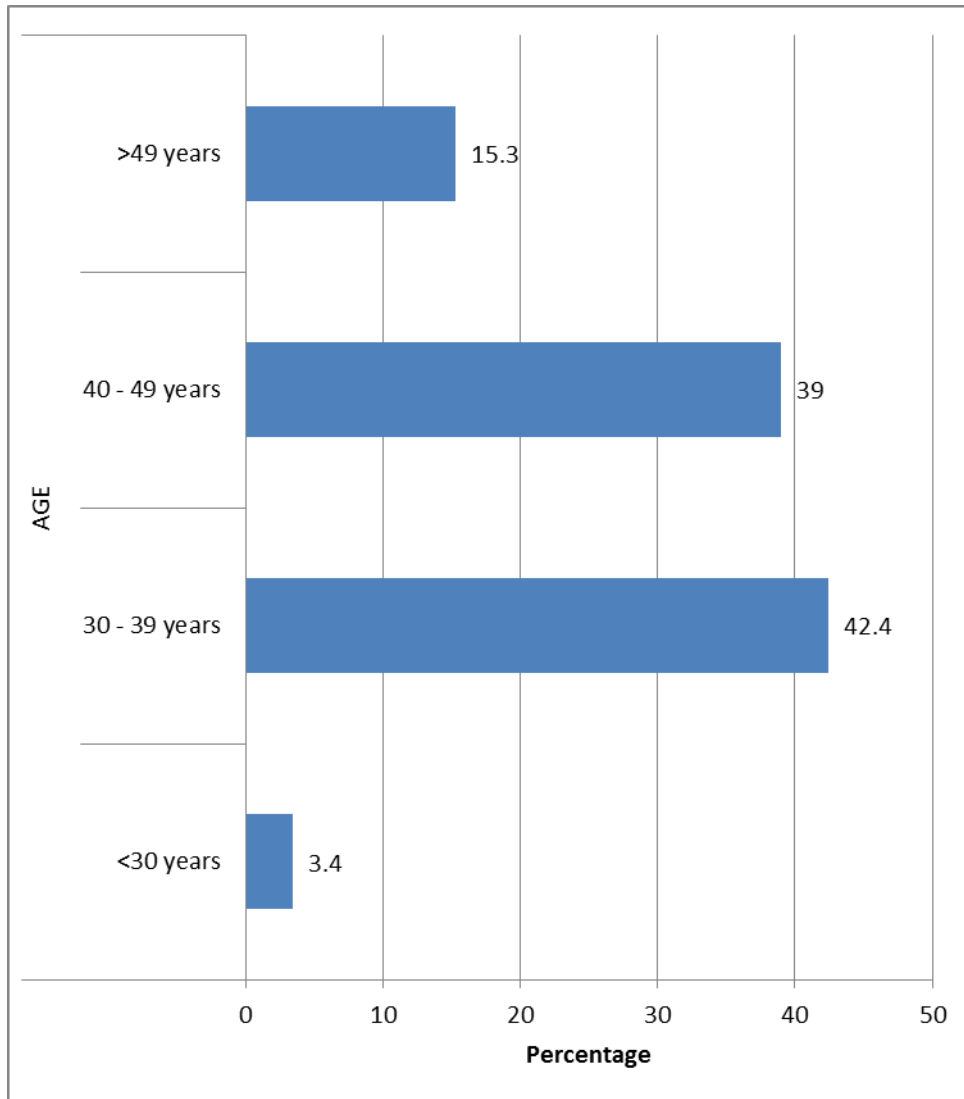


Figure 4.4: Age

The majority (96,6%) of participants were between the ages of 30 and 49 years. Only 3, 4% were below the age of 30 years and 15, 3 % were above 49 years.

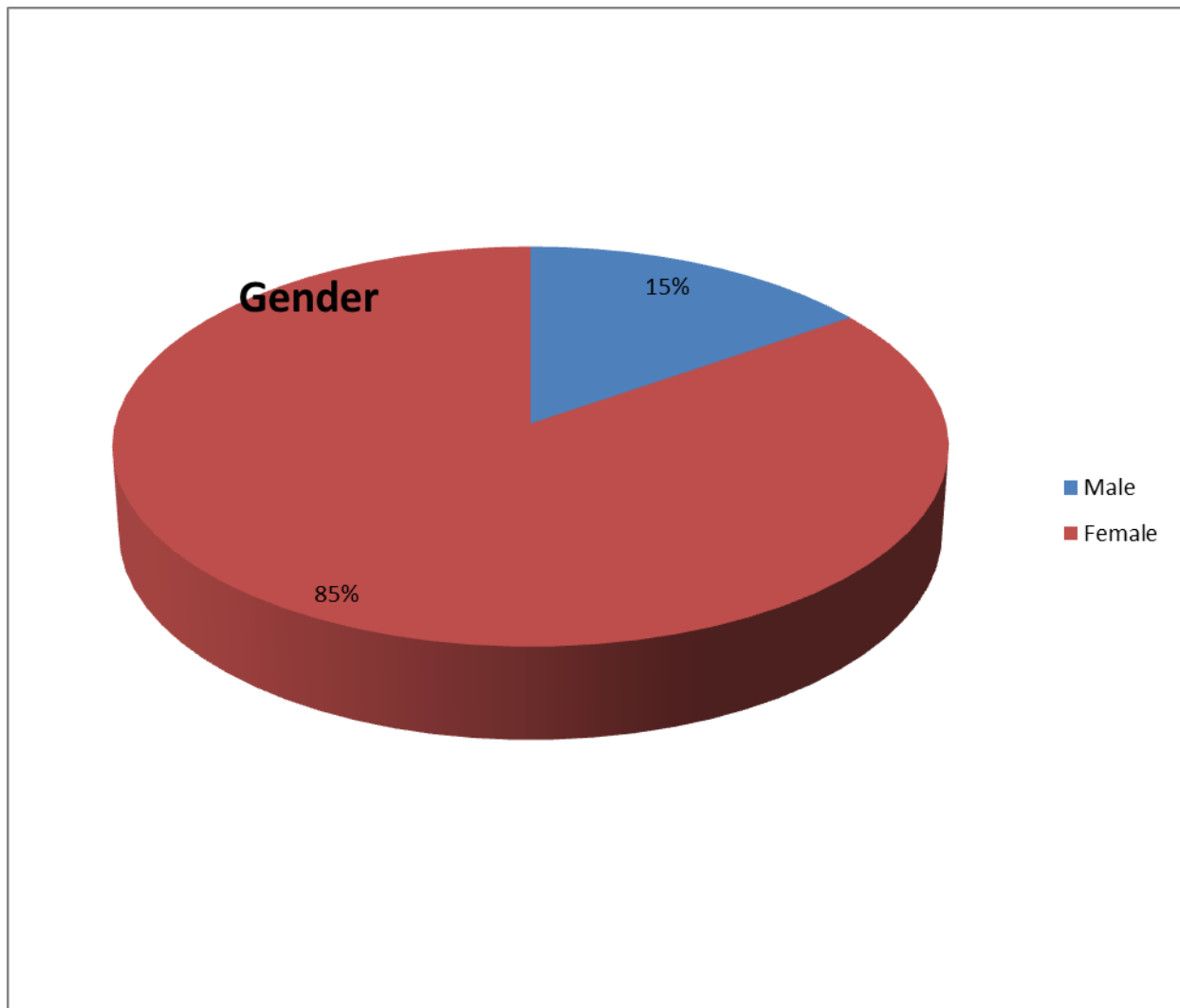


Figure 4.5: Gender

The study revealed that 84, 7% of the participants were females and only 15, 3% were males. This is in keeping with the fact that over the years nursing and more especially midwifery has traditionally been a female dominated profession.

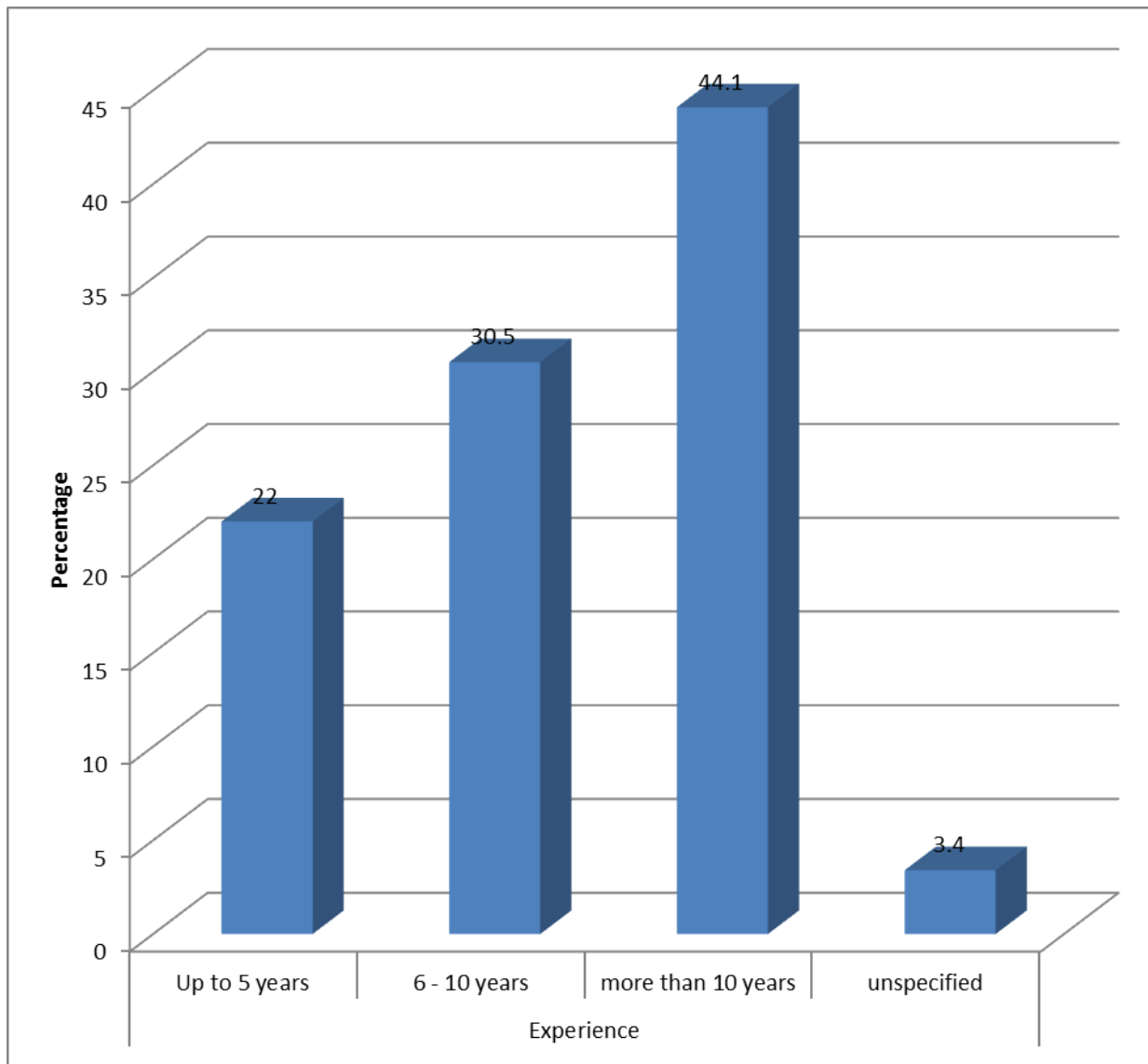


Figure 4.6: Experiences

The study revealed that 44, 1% of the participants had more than 10 years experience as practicing midwives and 30.5% had between six and over ten years. A very small group (22,0%) had between two to five years experience. This was probably influenced by the admission criterion to eThekweni Municipality PHC facilities which stipulates that the person should already be a practicing midwife at the time of his/her first appointment. However, 3,4% of the respondents did not specify their years of experience.

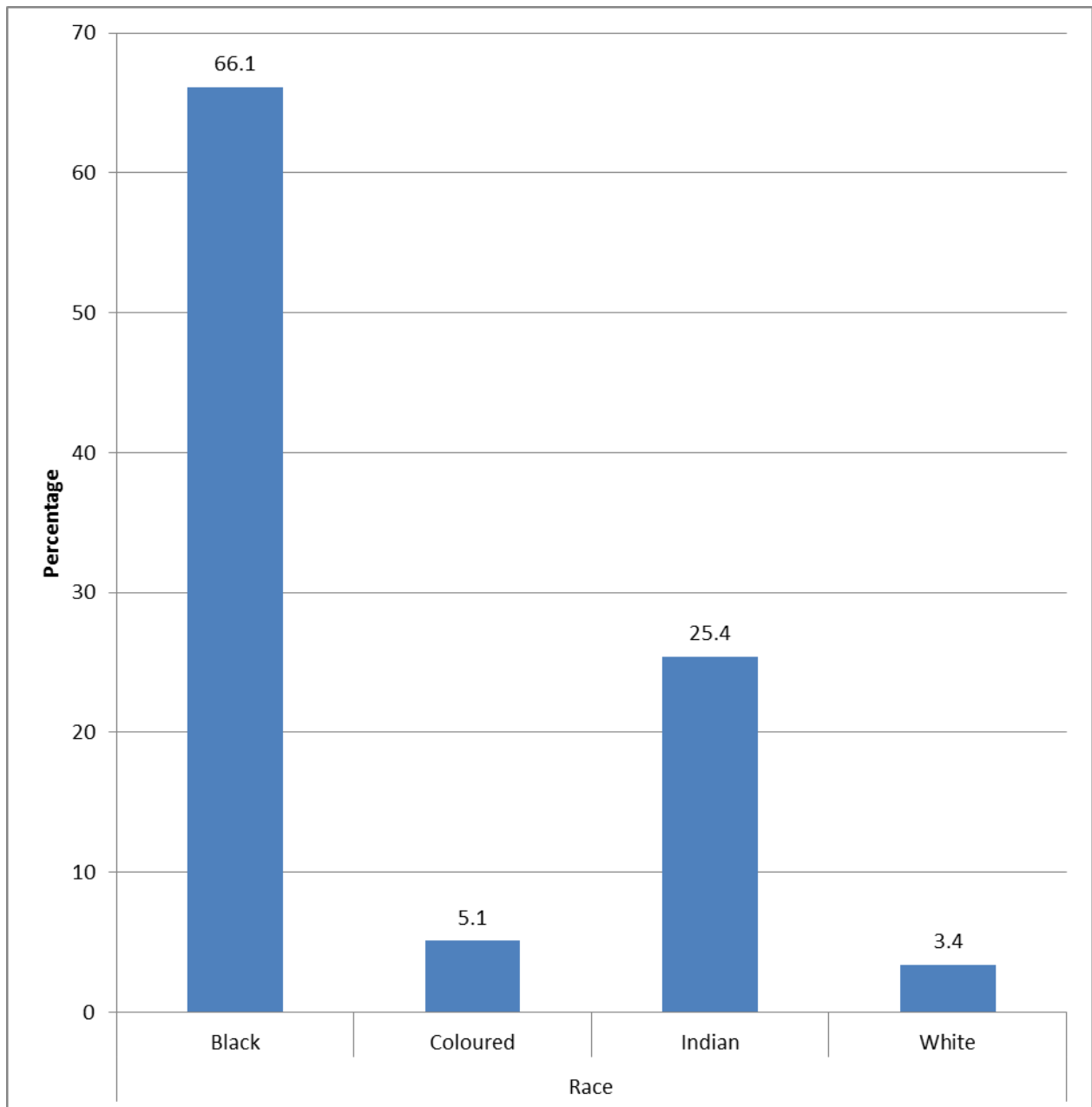


Figure 4.7: Race

The sample was representative of all racial groups. However, Blacks formed a bigger proportion of the study group at 66,1%, followed by Indians at 25,4% Coloureds at 5, 1% and Whites at 3, and 4%. This was probably influenced by the racial representation in the Municipality PHC facilities where the majority of staff members were from the Black racial group followed by Indians. There were very few Coloureds and Whites working as midwives in the Municipality PHC facilities.

#### 4.4.2 Provision of BANC services

Table 4.26: Frequency of ANC clinic

	Frequency	No of facilities	Percent	Valid Percent	Cumulative Percent
Every week day	5	17	94,4	94,4	94,4
2 - 4 days a week	3	1	5,6	5,6	100,0
Total	59	18	100,0	100,0	100,0

BANC required that ANC services be provided daily (Pattinson, 2005a). The study revealed that 56 (94,4%) participants said that ANC services were provided every day of the week in the facilities where they were working. These participants were from 17 PHC facilities. These 17 facilities were included in the study because they were implementing BANC. According to BANC, all 18 facilities were expected to be providing ANC services every. However, it is worth noting that there were three (5,6%) participants, who were from one facility, who indicated that they were providing ANC 2-4 days a week but were still implementing BANC.

Table 4.27: Number of midwives per facility

No of Midwives	No of Facilities	Frequency	Percent	Valid Percent	Cumulative Percent
2	1	2	3,38	3,4	3,4
3	6	18	30,5	30,5	34,9
4	6	18	30,5	30,5	65,4
5	3	12	20,3	20,3	85,7
6	2	9	15,2	15,2	100,0
Total	18	59	100.,	100,0	100,0

Of the 59 midwives that were included in the study, the following responses were given regarding the total numbers of midwives who were working in ANC in the facilities:

Two participants (3,4%) from one facility stated that there were two midwives in their facility, 18 participants (30, 5%) from six facilities stated that there were three midwives in their facilities, another 18 participants (30,5%) from another six facilities stated that there were four midwives, twelve participants (20,7%) from three facilities stated that there were five midwives and nine participants (15,2%) from two facilities stated there were six midwives. These findings revealed that the number of midwives working in ANC in each PHC facility ranged between two to six midwives per facility.

Table 4.28: Number of BANC trained midwives

No of trained midwives	Frequency	No of facilities	Percent	Valid Percent	Cumulative Percent
1	32	10	54,2	54,2	54,2
2	16	5	27,1	27,1	81,3
3	5	1	8,5	8,5	89,8
4	3	1	5,0	5,0	94,8
5	3	1	5,0	5,0	100,0
Total	59	18	100,0	100,0	100,0

All 59 participants indicated that they had at least one midwife who was trained in BANC. This meant that all the 18 facilities included in the study had at least one midwife who was trained in BANC. Data revealed that 32 ( 54,2%) participants from ten facilities indicated that there was one midwife in each facility who was trained in BANC, 16 (27,1%) participants from five facilities indicated that there were two BANC trained midwives in each facility, five (8,5%) participants from one facility indicated that three of them were trained in BANC , three (5,0%) participants from one facility responded that four midwives were trained in BANC in their facility and three (5,0%) participants from the other one facility reported that there was a total of five midwives who were trained in BANC in their facility. There were no (0,00%) participants who reported that they did not have a midwife who was trained in BANC in their facilities.

Table 4.29: Participants trained in BANC

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	27	45,8	45,8	45,8
No	32	54,2	54,2	100,0
Total	59	100,0	100,0	100,0

There were 27 participants (45,8%) who had training in BANC whilst the other 32 participants (54,2 %) had never received training in BANC. It is important to note that although 32 (54,2%) participants had not had training in BANC, according to Table 4.28 they had at least one or more midwife in their facility who was trained in BANC.

Table 4.30: Duration of BANC implementation

	Frequency	Percent	Valid Percent	Cumulative Percent
Less than 2 years	46	77,8	77,8	77,8
2 years or more	13	22,2	22,2	100,0
Total	59	100,0	100,0	100,0

There were just 13 (22,2%) facilities that had been implementing BANC for two years or more. The other 46 (77,8%) facilities had been implementing it for less than two years



Table 4.31: Frequency of in-service training on BANC

	Frequency	Valid Percent	Cumulative Percent
At least once a month	5	8,8	8,8
At least once a quarter	8	14,0	22,8
At least once a year	9	15,8	38,6
Less than once a year	8	14,0	52,6
Never	26	45,6	98,2
Unsure	1	1,8	
Total	57	96,6	100,0
Missing System	2	3,38	
Total	59	100,0	100,0

It was noted that although all the participants were from the same units they gave different responses regarding the availability of in-service education. A total of 26 (45, 6%) participants responded that in-service education on BANC was never conducted in their institutions. There were 33 (54,2%) participants who responded that in-service education was provided although they differed in their responses regarding how frequently it was offered. Out of these participants five (8,8%) stated that they had BANC in-service at least once a month, eight (14,0%) stated they had it at least once a quarter, nine (15, 8%) stated at least once a year, and another eight (14,0%) stated less than once a year. There was one (1, 8%) participant who stated that she was not sure how often the in-service education on BANC was conducted.

Table 4.32: Manager trained in BANC

	No of facilities	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	14	41	72,2	76,5	76,5
No	4	12	22,2	23,5	100,0
Total	18	53	94,4	100,0	100,0
Missing System	0	6	5,6		
Total	18	59	100,0		100,0

The 42 (72,2%) participants from 14 PHC facilities stated that their managers were trained in BANC, 12 participants from four facilities stated that their managers were not trained in BANC. Nevertheless, it is worth noting that there were six participants from six different facilities who did not indicate whether their managers were trained in BANC or not.

Table 4.33: Manager doing ANC supervisory visits

	No of facilities	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	14	46	77,8	77,8	77,8
No	4	13	22,2	22,2	100,0
Total	18	59	100,0	100,0	100,0

According to 46 (77,8%) participants, the managers from 14 facilities were doing ANC supervisory visits, whilst the managers from the other four facilities were reported by 13 (22,2%) participants that they were not doing the supervisory visits. This finding was perhaps influenced by the finding in Table 4.32 which looked at whether the manager

was trained in BANC or not. These findings reflected that the managers from 14 PHC facilities who were trained in BANC were the managers who were reported to be doing the supervisory visits. The other managers from the four facilities that were not trained in BANC were the ones who the participants said were not doing the supervisory visits.

Table 4.34: Support received

	Frequency	Percent	Valid Percent	Cumulative Percent
no support	10	16,9	17,9	17,9
inadequate	18	30,5	32,1	50,0
adequate	28	47,5	50,0	100,0
Total	56	94,9	100,0	100,0
Missing System	3	5,1		
Total	59	100,0		100,0

There were ten (16,9%) participants who said that they did not receive any support from their managers regarding BANC at all, and three participants did not answer this question. From the 46 participants who responded that they were getting support from the managers, 28 (47,5%) felt that the support that they were getting was adequate whilst the other 18 (30,5%) felt the support was inadequate. There were 41 participants who responded that their managers were trained in BANC of which 23 suggested that they were receiving adequate support from their managers and ten felt that the support that they were getting was inadequate. The other eight stated that they were not getting any support from their managers who were trained in BANC. According to the other twelve participants their managers were not trained in BANC and from this group only two participants felt they were receiving adequate support from their managers while eight felt the support was inadequate and the other two felt that they were not getting any support at all from their managers regarding BANC.

#### 4.4.3 Policies and Guidelines

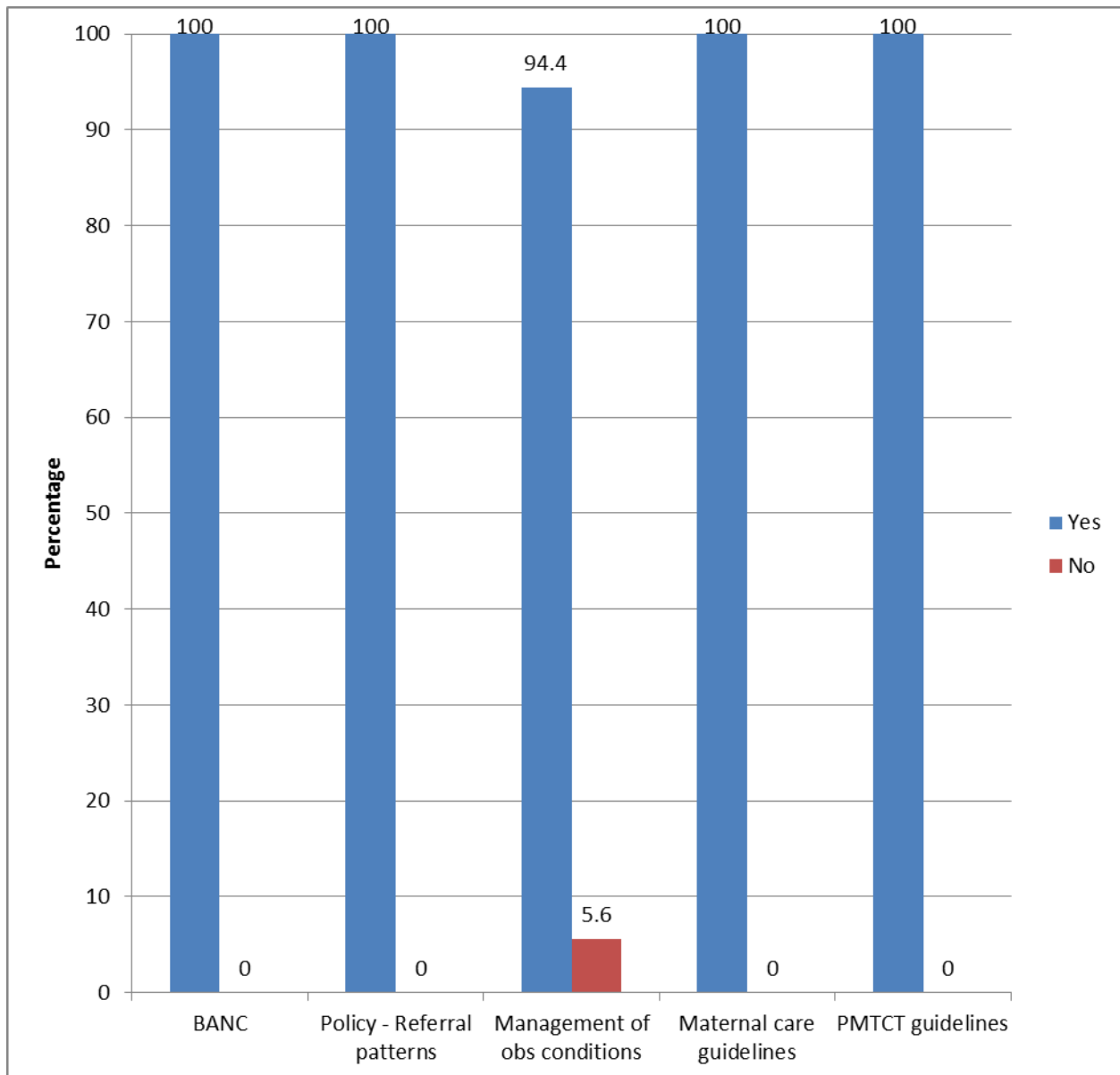


Figure 4.8: Availability of Policies

The policies for BANC, referral patterns, maternity care guidelines and PMTCT guidelines were available in 100% of the facilities. The policy on the management of obstetric conditions was not available in one (5,6%) of the facilities and was available in the other 17 (94,4%) facilities.

#### 4.4.4 Communication

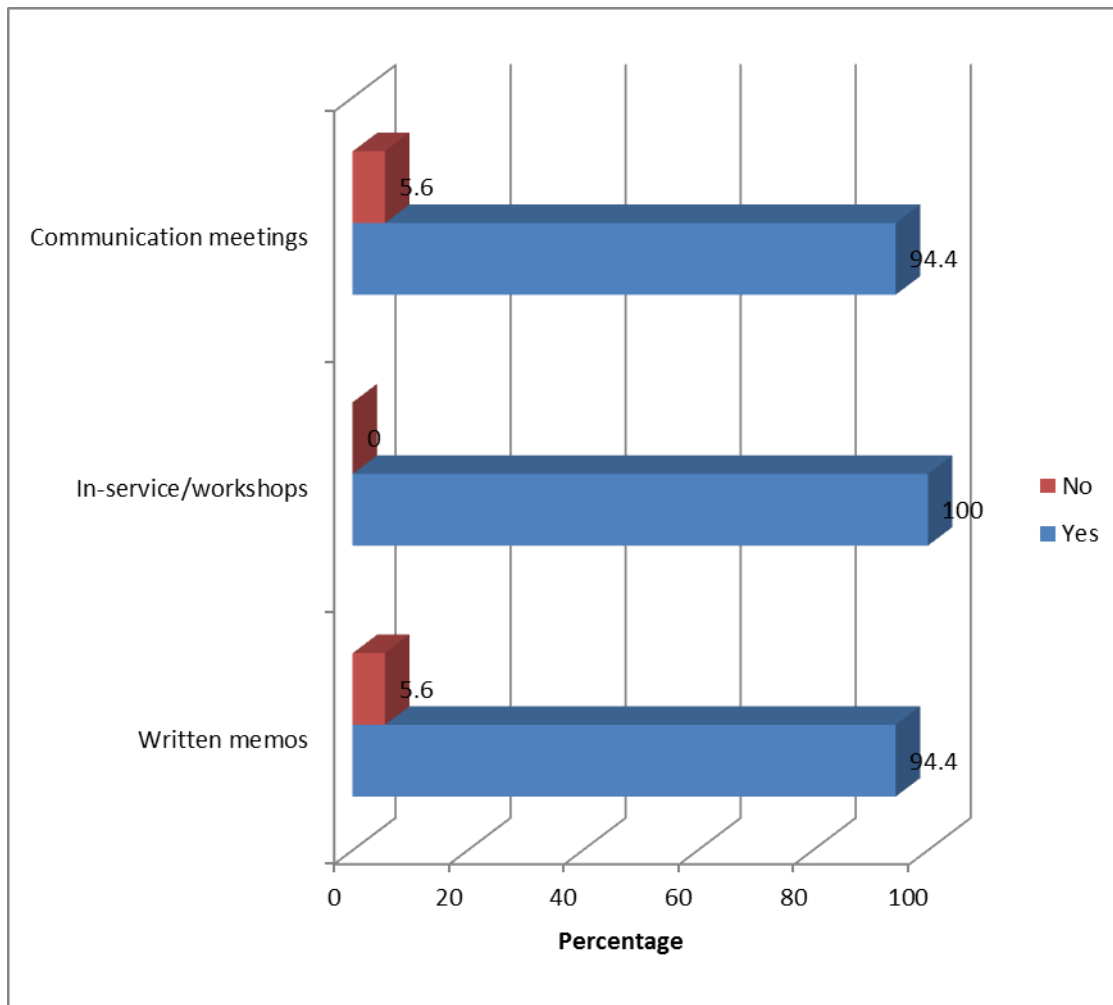


Figure 4.9: Available means of communication

Communication meetings, in-service education, workshops and written memos were indicated by the majority of the participants as the means of communication. The participants, who indicated that their managers were trained in BANC, also reported that they had communication meetings. Out of the 13 participants who indicated that their managers were not trained in BANC, ten of them indicated that they had communication meetings and the other three stated that they did not have any communication meetings.

#### 4.4.5 Workload

Table 4.35 Average number of clients (first visit)

	No of facilities	Frequency	Percent	Valid Percent	Cumulative Percent
Up to 5	6	20	33,8	33,8	33,3
6-10	7	23	38,9	38,9	72,7
11-19	1	3	5,6	5,6	78,3
20-29	3	10	16,9	16,9	95,2
30-39	1	3	5,6	5,6	100,0
Total	18	59	100,0	100,0	100,0

The study revealed that 20 (33,8%) participants from six facilities had an average of up to five first visit ANC clients each day. Participants from seven facilities stated that the average number of first visit ANC clients was six to ten clients per day. There were three (5,6%) participants from one facility who had an average of 11-19 first visit ANC clients per day. Ten (16,9%) participants from three facilities had an average of 20-29 first visit ANC clients per day. Only three (5,6%) participants from one facility had an average of 30-39 first visit ANC patients each day. It is worth noting that the majority (56=94,4%) of participants from 17 facilities had an average of between 5-29 first ANC clients during each visit.

Table 4.36: Average number of clients (repeat visits)

	Frequency	Percent	Valid Percent	Cumulative Percent
Up to 5	4	22,2	22,2	22,2
6-10	2	11,1	11,1	33,3
11-19	3	16,7	16,7	50,0
20-29	2	11,1	11,1	61,1
30-39	2	11,1	11,1	72,2
40 or more	5	27,8	27,8	100,0
Total	18	100.,	100,0	100,0

The total number of repeat ANC clients seen per visit varied from clinic to clinic. 22,2 % had about five repeat ANC clients per visit whilst 27,8% indicated that they saw 40 or more repeat ANC clients per clinic session.

Table 4.37: Nurse to patient ratio

	Frequency	Percent	Valid Percent	Cumulative Percent
Up to 1:10	8	44,4	44,4	44,4
1:11-1:20	4	22,2	22,2	66,7
1:21-1:30	5	27,8	27,8	94,4
>1:30	1	5,6	5,6	100,0
Total	18	100,0	100,0	100,0

The lowest nurse patient ratio was 1: 10 and this was in 44,4% of the facilities one facility (5,6%) had a ratio of above 1:30. Four facilities (22,2%) had the ratio of between 1: 11 to 1: 20. The other five clinics (27,8%) had a ratio of between 1: 21 and 1: 30. The

recommendation by the DoH in the *Saving Babies 2005, 3<sup>rd</sup> Perinatal Care Survey of South Africa* is that nurse patient ration in ANC clinics should be 1:40.

#### 4.4.6 Package of Services

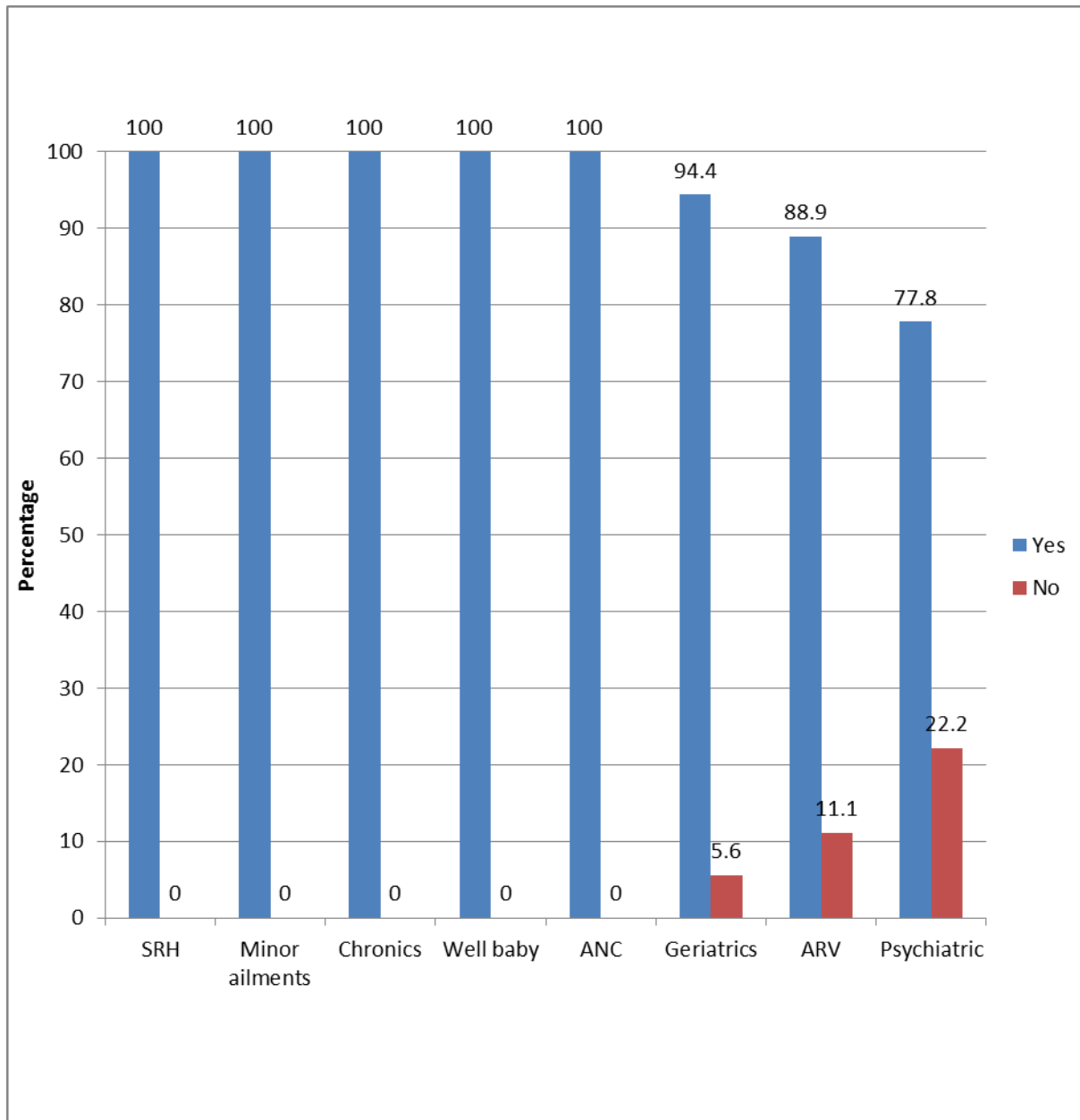


Figure 4.10: Services Available

The findings of the study revealed that services such as SRH, minor ailments, chronic care, well baby clinic, and ANC were offered in 100,0% of the facilities. Although not all



facilities provided geriatrics, ARVs and psychiatric services, these services were available in the majority of the facilities. According to the National DoH, all these services should be available at PHC level in order to ensure integrated PHC (Sibiya, 2009).

#### 4.4.7 Challenges with the BANC programme

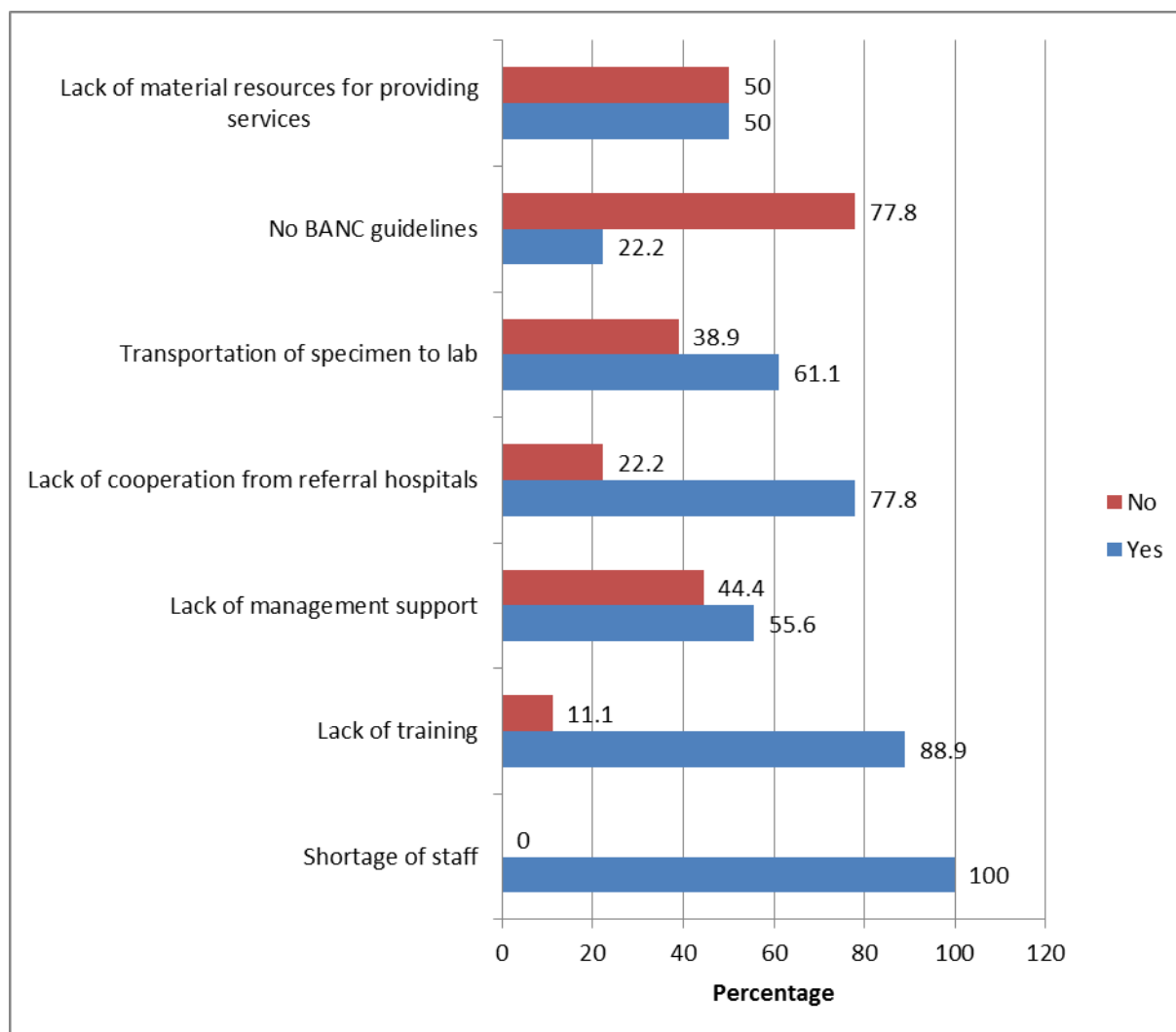


Figure: 4.11 Challenges experienced

All facilities highlighted a shortage of staff as one of the challenges with the BANC programme. Lack of training was indicated by 88,9% of the facilities. The third most common challenge as indicated by 77,8% of the facilities was a lack of cooperation from referral hospitals. Transportation of blood specimens to the laboratory was highlighted

by 61,1% facilities. About 50,0% indicated lack of material resources for providing the service and lack of management support as being challenges. There were 22,2% of facilities who highlighted the unavailability of BANC guidelines although the other 77, 8% did not indicate this as the challenge.

#### 4.4.8 Understanding of BANC programme

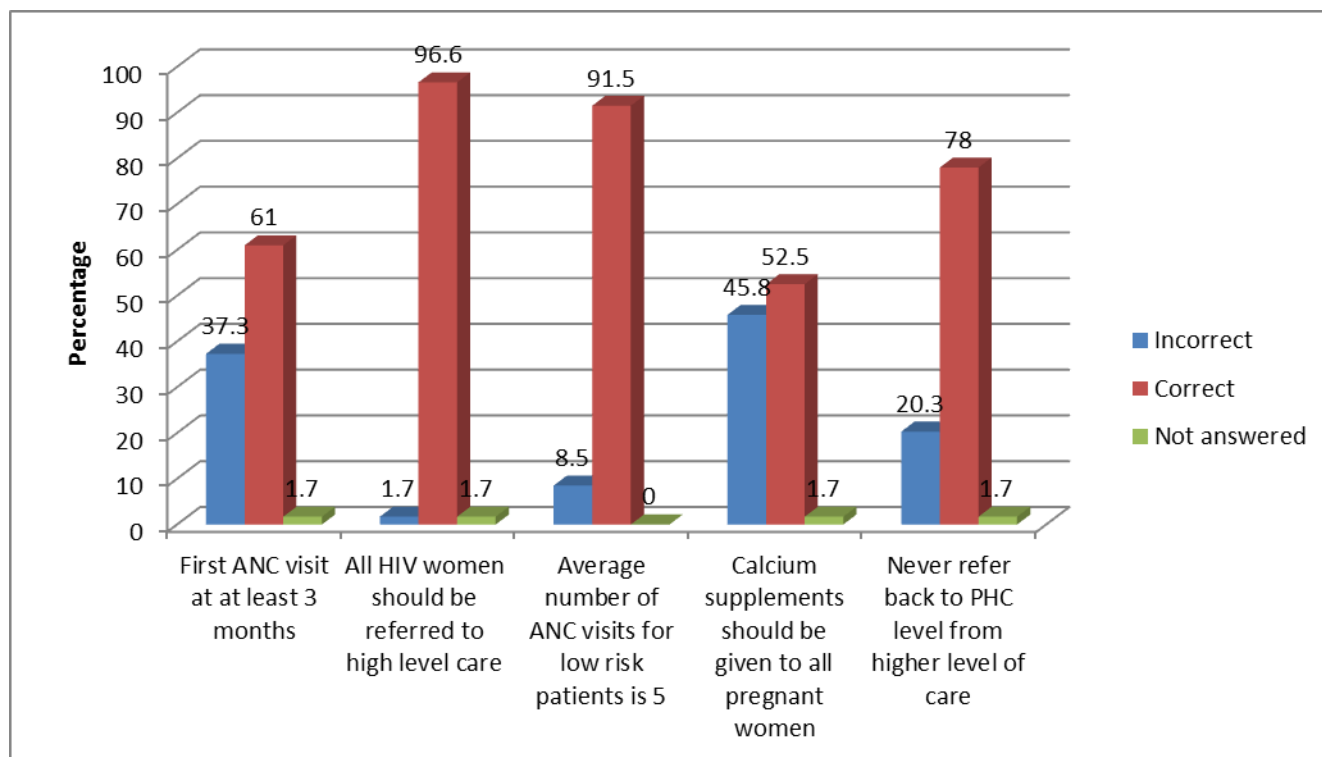


Figure 4.12: Responses to various questions about BANC programme

Several statements about BANC were used to test the understanding of the midwives for the BANC programme. The midwives had to state whether the statements were true or false. More than 50,0% participants gave the correct answers for all five statements. The statement that was best understood by the majority of the midwives (96,6 %) was the one about referral of clients with high risk factors to the higher level of care. This was followed by the one for the total number of visits for a low risk client at 91,5%, Only 52,55% of the midwives gave the correct answer for the statement about giving of calcium supplements to all pregnant women.

#### 4.4.9 Perceptions of BANC Programme

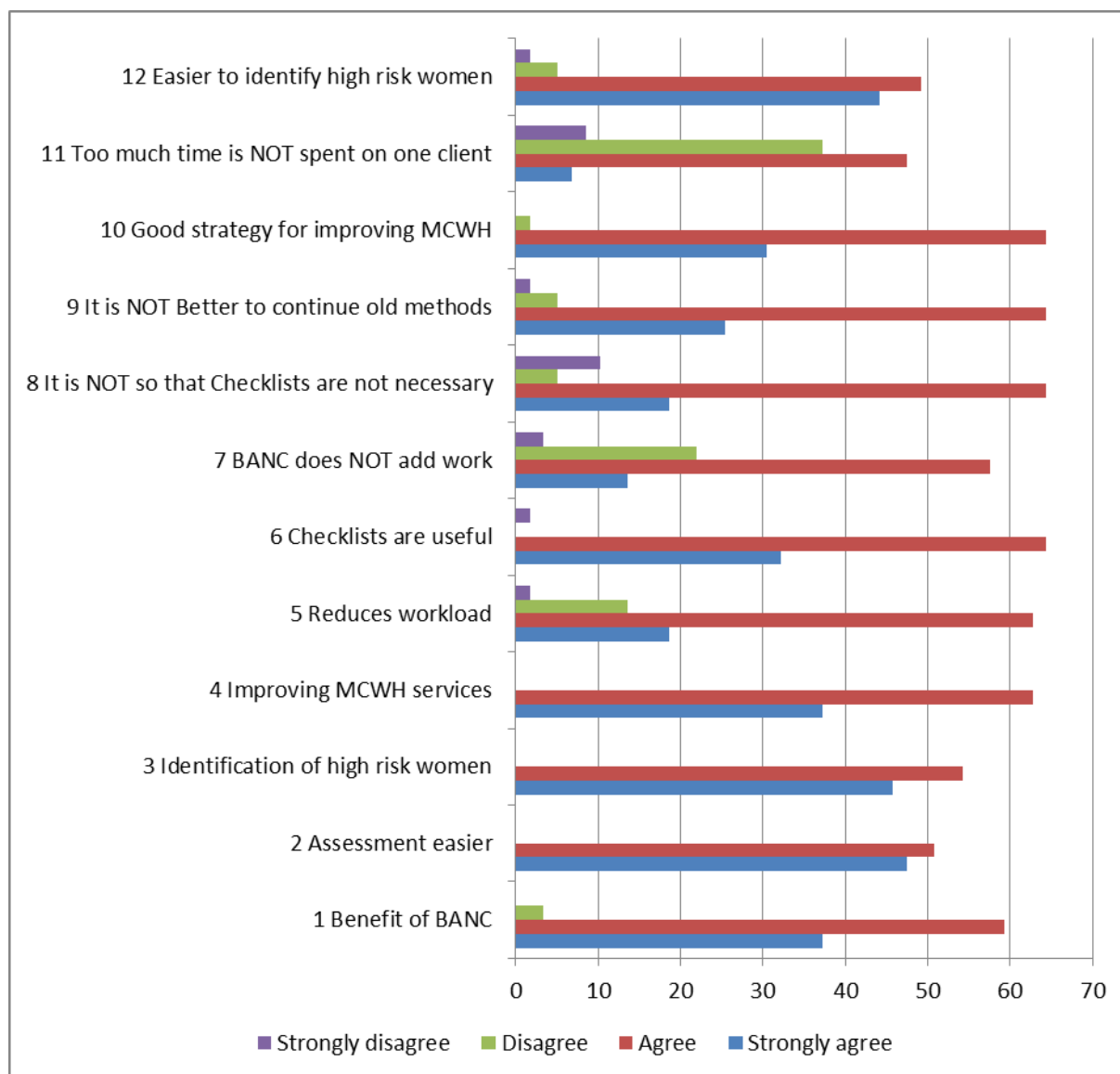


Figure 4.13: Responses to statements to assess perception

Average scores for these 12 questions were as follows:

Table 4.38: Analysis of midwives' perception of the BANC programme

	N	Mean	Std. Deviation
1. Benefit of BANC	59	1,66	545
2. Assessment easier	58	1,52	504
3. Identification of high risk women	59	1,54	502
4. Improving MCWH services	59	1,63	488
5. Reduces workload	57	1,98	641
6. Checklists are useful	58	1,71	562
7. BANC does NOT add work	57	2,16	702
8. It is NOT so that Checklists are not necessary	58	2,07	814
9. It is NOT Better to continue old methods	57	1,82	601
10. Good strategy for improving MCWH	57	1,70	499
11. Too much time is NOT spent on one client	59	2,47	751
12. Easier to identify high risk women	59	1,64	663
Valid N (list wise)	53		

There were 12 statements that were used to assess the midwives' perceptions of BANC programme. The participants had to verbalize their view point about the statements by responding whether they agreed, strongly agreed, disagreed or strongly disagreed with each statement. Based on the results from the analysis of midwives' perceptions towards the BANC programme, most participants displayed a positive perception towards the BANC programme. More than 50% of the participants were in agreement

with all the 12 statements that were used to assess perception of midwives towards BANC programme. It is worth noting that 100,0% of the participants either agreed or strongly agreed that BANC had made assessment of the clients much easier, had assisted the midwives to identify women with high risk factors and had improved MCWH services. Nevertheless it is worth noting that it was only in response to the statement that stated that too much time was not spent on one client that more than 30% participants did not agree. It is also worth noting that even for statements where the participants disagreed; there were either no participants or at least less than 10% participants were in strongly disagreement.

Analysis to ascertain whether responses of the different categories of the demographic variables were the same or significantly different revealed that no significant difference existed for the different age, gender, race or experience categories for either the perception of midwives or their understanding of BANC programme.

#### **4.5 CONCLUSION**

Chapter four presented the finding of all the data that was collected. It started with the survey that was carried out to identify facilities that were implementing BANC, then moved on to do a record review to identify the facilities that were successfully implementing BANC programme. Data was then collected from the midwives to identify the factors that could be affecting implementation of BANC and finally the perceptions and attitudes of the midwives in terms of the BANC programme have been discussed. The next chapter will discuss the findings of the study.

## **CHAPTER 5**

### **DISCUSSION OF RESULTS**

#### **5.1 INTRODUCTION**

The previous chapter focused on the presentation of the study findings. Chapter five will focus on a discussion of the study findings. The discussion will be based on the three objectives of the study as stated in Chapter one which were to identify facilities that had successfully implemented BANC programme, identify factors that influenced the successful implementation of BANC programme and to assess the perceptions of midwives regarding BANC programme.

#### **5.2 IDENTIFICATION OF FACILITIES THAT HAD SUCCESSFULLY IMPLEMENTED BANC PROGRAMME**

The first objective of the study was to identify the facilities that had successfully implemented BANC programme. The findings of the study revealed that out of 59 Municipality PHC facilities only 27 (47%) facility were successfully implementing BANC programme. In order to investigate and identify the factors that could have been influencing successful implementation of BANC programme it was necessary that the facilities that were successfully implementing the programme be identified. The study findings revealed that some of the Municipality PHC facilities were not providing ANC at all whilst in other facilities, although ANC services were provided, some of the facilities were not using BANC approach. The first part of the study thus involved the identification of all the facilities that were implementing BANC. It was important that the researcher had to first identify all the facilities that were providing ANC services, thereafter identify those facilities that were using BANC approach before attempting to select those facilities that had been successful in implementing BANC. This was done so that only the facilities that had successfully implemented BANC were included in the sample. The results of this exercise indicated that although more than 50% of the municipality PHC facilities were making an attempt to use BANC approach, not all of

them were successful. Further analysis focused on identifying the facilities that were successful in implementing BANC. In order to confirm that the facilities had successfully implemented BANC the study looked at whether BANC checklists were being used in the facilities that had indicated they were using BANC. The study findings revealed that out of 39 such, 27 (69%) were successfully implementing BANC. It is important to note that although this was 69% of the facilities that were using BANC approach, it only represented 47% of the total Municipality PHC facilities. This confirmed what the researcher had stated as the problem statement in Chapter One, that the majority (more than 50%) of Municipality PHC facilities were not successful in implementing BANC. It was this fact that had prompted the researcher to undertake the study. This was also not in line with the provision of the National DoH which stated that all Health institutions which were providing ANC, must implement BANC by the end of 2008 (Department of Health, 2008b). Record review was thereafter done in order to confirm that the facilities had really succeeded in implementing BANC. The records of clients that had completed their ANC and had given birth were reviewed. This helped to establish whether the facilities were following the process as stipulated by Pattinson (2005a) in BANC handbook, the guiding document that the facilities are using for implementation of BANC. In general, the findings of record review confirmed that the facilities that were included in the sample were successfully implementing BANC. However, it is important to mention that although these facilities were said to be successfully implementing the programme, some of the facilities still had a few gaps regarding implementation of BANC. This was especially the case in those facilities that had recently (less than two years) started the implementation. The areas that were analyzed during record review included the following:

- timing of ANC visit
- recording of additional visits to appropriate column provided in the checklists
- transfer of clients to the next level of care
- use of standard BANC checklists
- indication whether the client was eligible for BANC
- effective interventions
- discussion of the delivery plan with the woman

- Counter signing of checklists by another midwife.

### **5.2.1 Timing of ANC visit**

The study investigated how the facilities were timing all the ANC visits. The focus was on the first and the subsequent follow up visits but also on whether the midwives were following the guidelines regarding limiting the number of ANC visits to four to five visits per pregnancy. The results of the record review showed that most facilities were doing well regarding the timing of ANC visits and limiting the number of ANC visits to four to five visits throughout each pregnancy. However, there was still a challenge with timing of subsequent follow up visits. According to the World Health Organization (2006), all pregnant women should have at least four ANC assessments by or under the supervision of a skilled attendant and the visits should be spaced at regular intervals throughout pregnancy commencing as early as the first trimester. In response to this recommendation by the WHO, South Africa stipulated in the guidelines for maternity care that the first ANC visit should be before the woman is 12 weeks pregnant and subsequent follow up ANC visits are also limited to four scheduled visits throughout pregnancy for low risk women (Department of Health, 2008a). KZN ANC/PNC policy prescribes four to five scheduled ANC visits and that the first visit should be before the woman is 13 weeks pregnant (Department of Health, 2009b). According to Pattinson (2005a), ANC should be started as soon as pregnancy is diagnosed because the sooner the woman is brought into the system, the earlier problems can be detected and treatment given to the client. This increases the chances of success. The findings of the current study indicated that the facilities were following the criteria for implementing BANC. It is, however, important to note that the results revealed that there was a noticeable decline in the correct timing of scheduled subsequent visits. BANC provides for the follow up visits to be done at specific points in the pregnancy to allow for the timing of routine screening tests (Pattinson, 2005b).



### **5.2.2 Recording of additional visits to appropriate column provided in the checklists**

The other important factor that was examined was how the facilities were recording any other visits that were conducted for the woman over and above the scheduled visits. The findings of the current study revealed that the majority of the checklists had these additional visits recorded in the appropriate column. BANC provides that these additional visits be recorded in the additional columns that are provided in the checklist for follow up visit (Pattinson, 2005a).

### **5.2.3 Transfer of clients to the next level of care**

The study also involved assessing whether there were any ANC visits that were recorded to have been done at PHC level after the women were 38 weeks pregnant and whether the women were given instructions to attend the ANC at hospital level if they had not given birth by the time they were 40 weeks pregnant.

It would have been expected that these two elements would influence each other because if all women were given the instruction to attend ANC at hospital level, then there would not be any record of ANC that would have been done at PHC level after the 38<sup>th</sup> week of pregnancy. However, a discrepancy was noted in the findings for these two elements. The expectation was that because the majority of women were not given an appointment to attend the ANC in hospital, most clients visited the PHC after 38 weeks because they were not given the appointments to attend the hospital. Instead the opposite was noted: the study revealed that for the majority of women there were no further ANC visits done at PHC level after the 38<sup>th</sup> week. Nevertheless, it is important to note that the facilities were compliant in this aspect. However, very few women were given the instruction to go to the hospital. Pattinson (2005a) emphasizes that in order to safeguard pregnant women from post maturity and all the complications that are associated with it, the last ANC visit at PHC level should be at 38 weeks. Thereafter, women should be instructed to attend ANC at hospital level if they have not given birth by the time they reach 40 weeks gestation.

#### **5.2.4 Use of standard BANC checklists**

The findings of the current study reflected that all facilities that were included in the study were using both the checklists for first and follow up visits and were also filling in the checklists correctly. Pattinson (2005a) recommends that the checklists for the first and follow up visit be used for ANC. This is in line with the recommendation by the WHO in the model of ANC which states that the classifying checklists should be used for ANC (World Health Organization, 2002). The difference between the two recommendations is that according to BANC, two different checklists are recommended, namely First Visit Checklist and Checklist for Follow up Visit. The WHO model has just one checklist for first visit. According to the WHO (2002), the classifying form is to be used at the first ANC visit to decide which women should follow the basic component of the WHO model and which would require special care. Similarly, the BANC checklist which is used at the first visit differentiates between those women qualifying for BANC and those requiring a higher level of care (Pattinson, 2005a).

#### **5.2.5 Indication whether the client was eligible for BANC**

BANC requires that it should be indicated in the checklist whether the woman is eligible for BANC or not by attaching a coloured sticker to the checklist and also by indicating with either YES or NO at the end of the checklists. The study looked at both indications and discovered that whilst few checklists had a sticker, the YES or NO was used in most of the checklist to indicate whether the woman was eligible for BANC or not. These findings confirmed that the facilities that were included in the study were compliant in indicating on the checklists whether the women were eligible for BANC or not. According to Pattinson (2005a) at the first visit women should be divided into two groups according to the risk factors that they have: those qualifying for BANC programme and those requiring a higher level of care. This is in line with the provision by the WHO in their model of ANC that at the first visit pregnant women should be divided into two groups: those eligible to receive routine ANC, called the Basic Component; and those who needed care based on their specific health condition or risk factor (World Health Organization, 2002).

### **5.2.6 Effective interventions**

The study findings revealed that the facilities were compliant in executing effective interventions as stipulated by BANC guidelines. Effective interventions during ANC included routine screening tests such as RPR test to screen for syphilis, HB to screen for anemia and voluntary counseling and testing (VCT) to screen for HIV infection (Pattinson, 2005b). The interventions also included giving of prophylaxis treatment which included haematemics to prevent anaemia and calcium to prevent hypertension. In its list for the essential elements of focused approach to ANC, the WHO included screening for conditions and diseases such as anaemia, STIs particularly syphilis and HIV infection (Lincetto et al., 2006). Both maternity care guidelines (Department of Health, 2008a) and PMTCT guidelines (Department of Health Department of Health, 2010b) state that 100% of the clients should be tested for HIV during the first ANC visit and recommend that WHO clinical staging be done for all clients who test HIV positive. The need for all these interventions is also mentioned in KZN ANC/PNC policy (DoH, 2009b).

### **5.2.7 Discussion of the delivery plan with the woman**

The study findings revealed that although there were some facilities that were not compliant in ensuring that the delivery plan was discussed with the woman, more than 50% of the records indicated that this was done. The importance of discussing the delivery plan with the woman was emphasized by the WHO where it recommends a written plan for dealing with birth and any unexpected adverse event, such as complications or emergencies that could occur during pregnancy, childbirth, or the immediate postnatal period be prepared during ANC (Lincetto et al., 2006). The WHO suggests that this plan should be prepared for all women during ANC and should be discussed and reviewed by the skilled attendant together with the pregnant woman during each ANC visit.

### **5.2.8 Counter signing of checklists by another midwife**

The study findings revealed that the facilities included in the study were not compliant in ensuring that the checklists were double checked and counter signed by another

midwife during the 38 week ANC visit. This is one of the areas where the clinics were not performing well and still needed to improve. Pattinson (2005a) states that BANC requires that the clinical supervisor, who should be the staff member with the most skill at ANC, must check each pregnant woman's ANC card and checklist at her first visit and again at 38 weeks. This would safeguard both the client and the midwife in that firstly it ensured that appropriate care was provided to the clients and secondly it would also safeguard the midwife any omissions. Double checking the checklists and the client's ANC card would allow the supervisor to pick up gaps and omissions on the part of the midwives and get them corrected. However, the conclusion was that the facilities were not doing well in this regard and still needed to improve.

### **5.3 FACTORS INFLUENCING SUCCESSFUL IMPLEMENTATION OF BANC PROGRAMME**

The second objective of the study was to identify the factors that could have had an influence on the successful implementation of BANC programme. This was the main objective as it focused on the overall purpose of the study. The factors that were identified include the following:

- availability and accessibility of BANC services
- availability of policies, guidelines and protocols
- availability of various means of communication
- availability of comprehensive package of services and integration
- availability of training and in-service education
- experience of midwives involved in implementation of BANC programme
- availability of support and supervision by managers
- understanding of supervisors for BANC programme
- availability of human and material resources

#### **5.3.1 Availability and accessibility of BANC services**

The provision of the study ensured that all the facilities that were included in the study were implementing BANC programme. BANC services were available every day of the

week in every facility included in the study except for one facility in which the ANC services were provided twice a week. The Patients' Rights Charter requires that services should be available and accessible (Health Professions Council of South Africa 2008). It is only when ANC services are provided daily that this provision by the Health Professions Council of South Africa (HPCSA) can be achieved. Pattinson (2005a) recommends that services should be available every day of the week in every facility where women present so that the first ANC could be provided as soon as pregnancy is diagnosed. Pattinson further states that ANC should be started as soon as pregnancy is diagnosed because the sooner the woman is brought into the system; the earlier any problems could be detected and treatment given so that the client has a greater chance of a healthy pregnancy.

### **5.3.2 Availability of BANC policies, guidelines and protocols**

The study findings revealed that the protocols and guidelines that were relevant to BANC were available in the facilities. These included BANC guidelines and principles of good care, protocol on referral patterns and guidelines on the management of obstetric conditions, maternity care and PMTCT. It was only in one facility where the guideline for management of obstetric conditions was missing. The availability of relevant policies and guidelines was another factor that was identified as having a positive influence on the success of BANC implementation. Dave (2004) suggests that people should start as novices, and novices need rules guidance, rapid feedback and a safe environment. Since BANC is a new concept, it is important that relevant BANC policies and guidelines are available in the facilities to assist staff during the implementation of the programme. According to the WHO (2006), many countries have introduced policies which prescribe the delivery of the full package of effective ANC practices and span integration with other relevant key health interventions to enhance coverage of focused or goal directed ANC. The WHO further provides a list of factors that needed to be put in place to ensure successful implementation of the programme, amongst which they recommended that protocols and guidelines should not just be available but should be known and be understood by all health care workers. The first recommendation in the *Saving Mothers Report* is that protocols should be available in all institutions including facilities which

provide ANC and PNC services and that all midwives and doctors should be trained on the use of these protocols (Department of Health, 2008b). It was important to note that the relevant policies were available in all the facilities.

### **5.3.3 Availability of various means of communication**

The study findings indicated that various means of communication were available in the PHC facilities included in the study. Based on these results it was concluded that one of the factors that assisted the facilities that were successful in implementing BANC was good and varying means of communication that existed in the facilities. Communication meetings, in-service education, workshops and written memos were indicated by the study participants as the available means of communication. There were, however, some participants who responded that communication meetings and written memos were not used as the means of communication in their facilities. Oakland (2008) states that people's attitudes and behaviors could be influenced by communication. The author further states that the key factor to changing attitudes is to gain acceptance for the need to change. He further argues that it is essential to provide relevant information, convey good practices and generate interest, ideas and awareness through excellent communication processes. Steenkamp and Schoor (2008) state that internal communication plays an important role in the creation of a happy and productive workforce and that a characteristic of the work environment that people value highly is the magnitude and style of communication that prevails in the organization. According to Oakland (2008), failure to communicate effectively could create unnecessary problems which could result in confusion, loss of interest and eventually in declining quality through apparent lack of guidance and stimulus. The ability to communicate effectively is often considered the most valuable skill that the manager can possess and the effective nurse manager should be proficient in both oral and written communication, whilst her nonverbal communication should serve to strengthen the meaning of her words (Booyens, 1998). It can be concluded from the study findings that one of the factors that assisted the facilities that were successful in implementing BANC was good and varying means of communication that existed in these facilities.

#### **5.3.4 Availability of comprehensive Package of services and integration**

The findings of the study revealed that SRH, minor ailments, chronic care, well baby clinic, and ANC services were offered in 100% of the facilities. Not all the facilities provided Geriatrics, ARVs and psychiatric services. The purpose of assessing the package of services that were provided in the facilities was to assess the entry point where pregnant women could be identified and also to assess whether health care services were integrated to ensure that the first ANC was provided as soon as pregnancy was diagnosed. Pattinson (2005a) suggests that pregnancy test kits should be available in every health point where women present in order to ensure that no pregnant woman is missed. According to BANC guidelines, the first ANC visit should be provided at every point where women present and should be done as soon as pregnancy is diagnosed (Pattinson, 2005a). Pattinson also states that this could only be achieved if ANC is provided at every point where women present. Pattinson further suggests that this could only be achieved if services are integrated. The National DoH stipulates in the PHC Co-package of Services that comprehensive health services should be available at all PHC facilities and suggests that a supermarket or one stop shop approach to health care be implemented (Department of Health, 2001).

The one stop shop or supermarket approach ensures that comprehensive and holistic health care is provided for the patient and this can be achieved if services are integrated and are available every day of the week (Sibiya and Gwele, 2009). Integration policies were created in response to numerous problems that were faced by national health sectors. These include demands for decentralization of services, calls for adopting a market approach, and reductions in government funding for health care with the hope that it would bring about an increase in health provision efficiency from economies of scale. Savings in the cost of service delivery as a result of cost control measures and

improved quality of care for the users of services as a result of provision of more cohesive services were also hoped for (Magtymova, 2007). The benefit of integrating health care services was also supported by a number of studies (Briggs and Garner, 2007; Sibiya, 2009). The findings of these studies concur that the strategies to integrate primary health care aim to bring together inputs, organization, management and delivery of particular service functions to make them both more efficient, and accessible to the service user that will dictate new skills and knowledge. The importance of integrating health services is also supported by Myers (2005) who states that although the health care services are linked in an intricate network of relationships, most healthcare services are rendered in a vacuum and the industry largely ignores the close, natural interrelationships that exist between specialty areas, tending to focus on the individual treatment of disease, rather than overall patient health. The author claims that fragmentation of services and healthcare systems had helped to polarize individual providers against managed care objectives and hindered the quality of care through uncoordinated treatment. He suggested that the development and use of integrated healthcare systems were an absolute necessity to support the delivery of low cost, high-quality care. However, this required cooperation and coordination not previously experienced in the sector. The benefits resulting from an integrated healthcare environment could greatly assist the various caregivers in making correct assessments and administering the proper treatments, as well as facilitating the optimization of operations across the enterprise. Integration of PHC services is an important strategy towards the achievement of the national goals of transformation of health services, and the attainment of a comprehensive and seamless public health system (Sibiya and Gwele, 2009)

It was also important that the package of services be analyzed so that the workload of the midwives working at ANC clinics could be assessed. The findings of the study conducted in rural Zimbabwe on midwives' dilemmas and paradoxes in providing and changing ANC revealed that caregivers noted that too many programmes were included in the package of service (Mathole et al., 2005). The caregivers reported that the large number of programmes that were implemented simultaneously was interfering with their



performance, especially because each programme had its own supervisor who came to the health care centre at different times to monitor implementation. This resulted in a situation where the already overburdened staff members were not only expected to answer questions, but also to attend separate workshops about each programme. The caregivers were caught between the demands of the parallel programmes and the requirements of the government's core programmes on which performance appraisal was based. These findings emphasize the importance of both integration of services and monitoring of the workload.

### **5.3.5 Availability of training and in-service education**

The study results indicated that training and in-service education was done and all facilities had at least one midwife who was trained in BANC. The results also indicated that the majority of the midwives who participated in the study had undergone training in BANC. Although some midwives highlighted lack of in-service education as a challenge, it was important to note that there were 33 (54, 2%) participants who responded that in-service education was provided, although they differed in their responses regarding how frequently it was offered. All participants indicated that in-service education and workshops were used as the means of communication in their facilities. Meadows (2006) emphasizes the importance of training for the success of the organization and advised that it was important to maintain an ongoing assessment of the internal training needs of the organization while anticipating the changes in the external environment. It is critical for the organization to provide individuals with avenues of service and opportunities for personal development that match their skills and interests and offer training, mentoring and professional development support. The manner in which people are developed and managed is critical to their productivity and to the organization's success because each employee brings skills, experiences and core values to their work (Graham and Vaughan, 1998).

### **5.3.6 Experience of midwives involved in implementation of BANC**

The majority of participants had more than two years experience as practicing midwives. It was important to assess the level of experience of the practicing midwives

because according to Dreyfus Model of Skill Acquisition, the journey to mastery in any field moves from novice to experts (McClure, 2005). For the novice, the providers need rules and close monitoring as opposed to the expert where a person has a vision of what is possible and uses analytical approaches and needs concepts and vision. Murray and Haulb (2003) stated that humans are able to improve task performance as a result of repeated experience with a particular task. High quality experience turns human beings from novices to something approaching experts (Dave, 2004). One could conclude from this that the extent of the experience that the midwives who were working in ANC had would have an impact on the success of BANC implementation.

### **5.3.7 Availability of support and supervision by managers**

The study investigated the support regarding BANC programme that was given by supervisors to the midwives. The results were that at least 50% of the supervisors were supporting the midwives. A good leader would be able to identify the organizational goals or specific targets and should be able to impart these goals to his team members and commit them to work hard and intelligently to achieve organizational goals (True Leadership, 2009). The study also looked at whether the supervisors were trained in BANC and compared whether this had any impact on support and supervision. The majority of the supervisors who were trained in BANC were providing good support and supervision to the midwives, whilst the majority of those that were not trained in BANC were not giving adequate support to the midwives that they were supervising.

On the question of communication meetings, 50% of the participants indicated that the managers who were trained in BANC held communication meetings with their staff whilst those that were not trained, did not. Supervision is about building trusting relationships with employee because when the supervisor and the employee trust one another they are both able to apply their thoughts and efforts to each situation. This strong working relationship then builds the necessary commitment to get the work done (Greenfield, 2006). Greenfield also stated that the role of the organizational leader should be that of a facilitator who encourages organizational development and

encourages staff to assume leadership roles and pushes the organization to change where it needs to.

### **5.3.8 Supervisors' understanding of BANC programme**

The study examined the level of understanding amongst the supervisors of the BANC programme and discovered that the majority of the supervisors were trained in BANC and therefore were expected to have some understanding of the programme. Kouzes and Posner (2002) state that people want to follow someone who is competent and they describe the five qualities of leadership as being honesty, forward looking, competent, inspiring and intelligent. Catenacci (2010) states that people want to follow someone who is competent. A supervisor must therefore be knowledgeable in the field that he/she supervises and should be always above the subordinates. According to Calder (2006), the project leader should be the person who provides enthusiasm, certainty and an understanding of what is involved in the first phase of the project since she is the person to whom everyone else in the organization turns for insight, comfort and support. Calder further explained that this meant that learning too obviously on the job is not advisable. This is not to say that the leader needs to know all the answers at the outset, because that is not practical, but as long as she has a clear understanding of the strategic issues, and a practical knowledge of where to turn for advice and guidance, she can be effective even if she is only a day or two ahead of everyone else in the detailed knowledge required for the project.

### **5.3.9 Availability of human and material resources**

The lowest nurse-patient ratio in the facilities in the study was 1:10 and the highest was 1:30. According to the stipulations of the DoH, the nurse-patient ratio at PHC level should be at least 1:40 and the suggested staffing norm for ANC according to saving babies report was two to three midwives for every 100 bookings (Department of Health, 2005). All the facilities on the study were below the ratios as stated by the DoH in the

two references mentioned above. This is a critical factor that could have influenced successful implementation of BANC in that they were adequately staffed according to the workload. Pattinson (2005a) states that the provision of sufficient skilled staff was important for accurate and successful provision of ANC. Constant availability of material resources is also noted as an important factor that influenced the successful implementation of BANC. During the sampling phase two of the facilities indicated that they had stopped providing BANC because they had run out of BANC checklists. This indicates the need for the organization to ensure that human and material resources are available and sustained.

#### **5.4 MIDWIVES' UNDERSTANDING AND PERCEPTIONS OF BANC PROGRAMME**

The third objective of the study was to assess the midwives' understanding and perceptions of BANC programme. The findings of the study revealed that the majority of the midwives had a good understanding and positive perceptions of BANC programme.

##### **5.4.1 Midwives' understanding of BANC programme**

The study further explored midwives' understanding of BANC programme. The findings revealed that the majority of the midwives had a clear understanding of the programme. This was another factor that was identified as influencing the successful implementation of BANC in PHC facilities. Their understanding of BANC programme either could have been as the result of training that they had received or because of the support they received from the midwives who were trained in BANC. These midwives were working as the champions for the programme and the support that the midwives were getting from the supervisors who were trained in BANC was very important. The study findings showed that all facilities had at least one midwife who was trained in BANC with 44, 4 % facilities having more than one midwife who was trained in BANC. The midwives who were trained in BANC were the champions who were leading the implementation process. Pattinson (2005a) recommends that champions should have been trained for each facility so that they would lead the process of implementation. The supervisors

from most of the facilities were trained in BANC and the study results revealed that these supervisors were giving supportive supervision to their staff.

Another strength which could have influenced successful implementation of the programme was the supportive supervision that existed in the facilities. The manager, who was a pillar of knowledge and support, had a clear understanding of the programme that was being implemented by her subordinates. This ensured that the supervisor guided and supported the staff correctly during the implementation process. Although there were some participants who themselves had not had BANC training, they had at least one midwife whom they were working with in the facilities that had been trained in BANC and this had a positive influence. During the sampling phase some of the midwives indicated that they were not implementing BANC because they did not have anyone who was trained in BANC to guide and lead the implementation process. Other midwives indicated that they had started but had stopped since the midwife who was trained in BANC had left the facility.

#### **5.4.2 Midwives' perceptions of BANC programme**

The study examined the perceptions of the midwives of BANC programme and the study results indicated that the majority of midwives had good perceptions of BANC. This was another factor that was identified to have had positive influence on the success in implementing BANC. Vaughan (1994) highlights that the strength of an individual's involvement is directly related to the extremity of his or her attitude toward the system. With increased user involvement and a positive attitude, users have an increased desire to participate in programme development simply because if an individual believes that the system is personally relevant, he will be more likely to form a positive attitude toward that system as attitudes are generally formed on the basis of beliefs. Vaughan further states that implementers would be able to enhance the probability of effective user involvement by assessing the user predisposition toward the system, development of appropriate system for the organization, the knowledge needed to work with the system and the impact of the system, including analyzing user beliefs

regarding perceived ability to effectively contribute during the development process. Vaughan declares that whilst it is essential to involve key decision makers for their insights, authority and sponsorship, one should also consider involving anyone who would be touched by the system. Staff members involved with daily operations offer important insights into critical operational success factors and as representatives of a variety of subcultures, they also bring a broad representative diversity to the project. Markus (1983) claims that the project success is dependent upon the insights and knowledge of invested members from each of the subcultures which are expected to embrace the system.

Catenacci (2010) describes how certain individual level variables including biographical characteristics, personality, ability and learning affect productivity, absenteeism and turnover and job satisfaction. It is agreed that if midwives displayed a positive attitude towards the programme, this could have a positive influence on the success of the programme. Behavior in the workplace is based on people's perception of the workplace (Catenacci, 2010). The author also states that research has shown that what employees perceive about their work situation, influences their productivity. Therefore, to influence productivity, it was necessary for employers to assess how workers perceive their jobs. Likewise, absenteeism, turnover and job satisfaction have a link with an employee's perception of the job. Those individuals who perceive their jobs as negative are likely to have increased absenteeism, more frequent turnover and less job satisfaction. The only way to influence these variables is to understand how an employee subjectively perceives the workplace and how this perception is able to promote active participation in the programme.

No single quality of management practice is more highly correlated with success than employee participation. However; the question then becomes how to structure this participation to best ensure its success for the employee, the project and the organization (Waldron, Vsanthakumar, Arulraj.n.d). They proposed that user acceptance of a new system would be facilitated when changes are realistically anticipated through input from knowledgeable sources, when contrasts are given free expression through discussion among co-workers and between implementers and

users, when surprises are minimized through preview and realistic testing, and when assistance is provided in coping through the availability and coaching of experienced implementers. They also maintained that enhancement of control through involvement can be accomplished by offering choices to the employee, involving them with meaningful decisions during the systems process, laying the groundwork for predictability by painting a complete and accurate picture in advance of the users, allowing the employee to assume some measure of responsibility during the systems design and implementation process, making them accountable for the results of specific tasks integral to the implementation process and encouraging shared ownership of the project. Offering opportunities to reduce or escape from the stress that is inherent in a system implementation project is also necessary. There were very few midwives whose responses demonstrated negative perceptions towards BANC. Even the midwives who responded that BANC requires that too much time is spent on one client, they had positive responses for the other statements. Few midwives who displayed negative perceptions towards BANC said they did not agree with the statements that were given about BANC. However, it is worth noting that none of the midwives indicated that they strongly disagreed with the statements. From these findings one can therefore conclude that the midwives' perceptions of BANC were generally positive.

## **5.5 CHALLENGES**

Although the main focus of the study was to identify the positive factors that could have been influencing successful implementation of BANC, the study also explored the challenges that were encountered by the midwives during the implementation. Several of these were highlighted and these included:

- shortage of staff
- lack of cooperation from referral hospitals
- lack of in-service training
- transportation of specimen to laboratory
- lack of material resources
- lack of management support
- Unavailability of BANC guidelines.

### **5.5.1 Shortage of staff**

The midwives highlighted a shortage of staff as one of the challenges with BANC programme. Whilst in South Africa there is good policy in clinics to ensure adequate staff coverage, South Africa on the other hand is not doing well in communicating these policies to the users and also is faced with challenges of too little resources such as budgets, equipment, staff, and transport (Baleta, 2006). Pattinson, (2005a) stated that lower level managers needed the necessary resources and skills for implementing new interventions. He presented that the interface where most change happens was between the patients and the health-care provider, who needs the necessary skills and resources.

The majority of midwives reported that the shortage of staff was compounded by the adoption of the supermarket approach to PHC. This approach required that all programmes be provided every day of the week (Department of Health, 2001). This resulted in facilities being overcrowded. According to the World Health Organization (2005), having too many patients per nurse negatively impacts on patient care, places unnecessary stress on hospital staff and increases the risk of preventable conditions progressing to life threatening stages for patients. The recommended minimum ratio for nurses to population is 200:100 000 (or 500 people per nurse, (Joubert, 2009). The recommendation by the National DoH in the *Saving Babies* report is that the nurse patient ratio at ANC should be 1:40 (Department of Health, 2007b). It is more accurate to measure the nurse patient ratio separately for each health unit as different types of units require different types of care. The nurse/patient ratio is ultimately the factor that determines workload, job satisfaction and effectiveness of care in the health unit (Joubert, 2009).

### **5.5.2 Lack of in service training**

Lack of in-service training was noted by 88.9% of the participants as another challenge. This was contradictory to the information that was gathered on the frequency of in-service education and the available means of communication. There were 33 (54, 2%) participants who responded that there was in-service education provided, although they



differed in their responses regarding how frequently it was offered. All participants indicated that in-service education and workshops were used as the means of communication. All facilities had at least one midwife who was trained in BANC. The majority of the midwives who participated in the study had undergone training in BANC. Nevertheless, these findings indicate that a significant number of midwives still saw the lack of in-service education as a challenge. It is important for organizations to acknowledge that training is not a 'recreational' luxury to be implemented when times are good, but is also an essential survival tool when times are rough (Meadows, 2006). Meadows suggest that it was therefore important to maintain an ongoing assessment of the internal training needs of the organization while anticipating the changes in the external environment. People are the most vital resource of any organization therefore, it is important to create an environment that allows people to work at their best, where conditions exist for continual learning and improvement and it is important to value and respect people who work with and for the organization as intelligent and capable human beings.

### **5.5.3 Lack of cooperation from referral hospitals**

The third common challenge that was indicated by 77, 8% of the facilities was a lack of cooperation from referral hospitals. The referral system is an integral part of PHC and requires clear communication to ensure that the patient receives optimal care at each level of the system (Department of Health, 2003). The provisions of the DoH are that the PHC should maintain a close relationship between all levels of the health care system, starting at the community and extending upward to higher levels of care in order to ensure that each patient is connected through a seamless continuum of services and arrives at the appropriate level capable of giving optimal health care for any given problem. This can only be achieved through a smoothly functioning referral system and would ensure that the patient arrived at higher levels where more specialized medical professionals as well as diagnostic and therapeutic tools are available. The DoH also claims that the most complex aspect of referral care is often the caretaker's acceptance of and compliance with a referral recommendation which may be determined by a variety of factors including the perceived need of a referral (disease severity),

caretaker/community experience with and impressions of the referral facility (quality), and cost (time and resources) (Cervantes, 2003). It is the role of the supervisor to ensure a smoothly functioning referral system (Department of Health, 2003).

#### **5.5.4 Problems with transportation of specimens to the laboratory**

Transportation of specimens to the laboratory was highlighted by the majority of the participants as a challenge. This could have a negative impact on the success of BANC programme because in order for the organization to be truly effective, it is important that each component work properly (Oakland 2008). Oakland states that a failure to meet the requirements in one part or area creates the problems elsewhere leading to more errors or problems because each part. Each activity and each person in the organization affects and in return is affected by others. In order to ensure that the project or programme succeeds, it is important that all its systems and processes are in place and are functioning smoothly because, according to Oakland, organizations need very good processes in order to perform well.

#### **5.5.5 Lack of material resources**

Few midwives highlighted the shortage of material resources. Material resources are an important prerequisite for the success of the programme. Pattinson (2005b) lists the basic material resources that should be available in every facility that is providing BANC. The organization should ensure that the necessary resources are provided in order to establish and improve the quality management system. All processes and projects need to be in place to ensure that the general infrastructure needed to meet the service requirements needs is provided and maintained. This includes the buildings, equipment, any supporting services and the work environment (Oakland, 2008).

#### **5.5.6 Lack of management support**

It is important to mention that there were a few midwives who indicated that they were experiencing lack of management support regarding BANC. The majority of these midwives also indicated that their supervisors were not trained in BANC. Support from management is very important when the group is implementing a new programme

because the supervisor acts as the facilitator by exercising a constructive influence on the group. The supervisor revitalizes and directs the group's attention towards the set goals and evaluates the progress (Booyens, 2005). Booyens states that this is one way through which group performance can be enhanced.

#### **5.5.7 Unavailability of BANC guidelines**

The majority of policies and guidelines were available in almost all facilities. However, the midwives from one facility indicated that the policy on the management of obstetric emergencies was not available in their facility. According to Booyens (2005), it is important that all relevant policies are available in the facility because policies describe the way in which the department is intended to function or the work and the way in which procedures must be done. These are essential for accomplishing organizational goals as they explain the steps to be followed towards achieving the goals, help to coordinate plans, control performance and increase consistency of action.

### **5.6 CONCLUSION**

The overall findings of the study were that the positive factors that prevailed in the facilities definitely did contribute to the success that the facilities had experienced in implementing BANC programme. The positive perceptions of the midwives of the programme and their good understanding of the programme were also identified as making a valuable contribution to the success of implementation of BANC. The negative factors identified revealed that, although the facilities were successfully implementing BANC programme, there was still room for improvement in order to achieve full success.

### **5.7 LIMITATIONS OF THE STUDY**

Data from the midwives was collected using self-administered questionnaires and because there were no face to face interviews with the midwives, it was not possible to gain clarity where the responses were not clear (e.g. where midwives from the same facility gave differing responses). The researcher did not coordinate the collection of

data from midwives because of the fear that the midwives could be intimidated by her presence as she was working as the quality assurance manager in the same organization and was therefore involved in supervision of the midwives. A research assistant who was not familiar with the programme was used to coordinate distribution and collection of questionnaires.

## **5.8 RECOMMENDATIONS**

The following recommendations were made with special reference to policy development and implementation, institutional management and practice, nursing education and further research. These factors were identified as having an influence on the successful implementation of BANC programme and can be used to strengthen BANC programme at different levels.

### **5.8.1 Policy development and implementation**

It is critical that relevant policies and protocols on BANC be made available in all institutions that are providing ANC. The policies and guidelines give direction to the staff in the organization and ensure standardization of performance. Relevant policies, service delivery guidelines and protocols should be available in all facilities that provide BANC services and all staff and supervisors should be trained on the use of these documents to ensure safe and standardized practice.

### **5.8.2 Institutional management and practice**

The recommendations relating to institutional management and practice include strengthening of supportive supervision, reviewing of resource allocation, good open two-way communication, the integration of services and encouragement of active participation of all people involved in the programme. Supportive supervision should be strengthened to ensure that midwives gain adequate support and guidance. Supervision ensures that staff is compliant with the provision of the guidelines and that they follow instructions. It also ensures that guidance, support and encouragement are given to the staff until they gain confidence in carrying out the new procedures. It is important that

human and material resources should be reviewed for adequacy when new programmes are introduced. Adequate and constant supply of human and material resources should be ensured at all time. Only midwives with the passion and a good attitude towards BANC and maternity services should be allocated to work in ANC.

Open communication should be available at all levels of care and in all directions to ensure that relevant new information is cascaded accordingly and timeously. Two-way communication ensures that messages are conveyed to the staff and that feedback is obtained regarding the progress and challenges encountered. Services should be fully integrated to ensure accessibility and availability of BANC services. BANC services should be available every day of the week and at every health service where women present. Active participation of all midwives who are involved in the programme should be encouraged and all levels of staff should be allowed an opportunity to give input into the planning for the programme so that they feel that they are the important part of and own the programme.

### **5.8.3 Nursing Education**

Effective training and skills development, including a commitment to ongoing learning and development is needed to ensure successful implementation of BANC programme. All midwives involved in ANC should have training in BANC. The department should work towards getting every midwife trained in BANC. Where circumstances do not allow the training of all midwives, each facility should strive to have more than one midwife who is trained in BANC so that the trained midwives are able to complement each other. This will assist to sustain the programme in circumstances where there is staff turnover.

It is further recommended that since BANC is the South African National DoH 's recommended approach to ANC, training in BANC should be incorporated into the basic midwifery training so that every trained midwife is able to use BANC approach to ANC. Supervisors should also be included in training so that they have the full understanding of the programme. This will ensure adequate supportive supervision.

#### **5.8.4 Further research**

There were some areas that were identified during the study that, should they be investigated, the findings will ensure successful implementation of BANC and strengthen the programme. These areas include identification of factors that are negatively influencing implementation of BANC, investigating why the checklists are not countersigned by the second midwife and investigating whether the policies are known, understood and used by the staff in the facilities. The current study only focused on the facilities that had successfully implemented the programme and there was no comparison with those facilities that had not been successful. It would be useful to investigate the negative factors that affected implementation. It is recommended that further research be undertaken in order to identify the factors that are preventing the certain facilities from implementing BANC programme. This will assist in ensuring that corrective measures are instituted to overcome these factors.

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# Appendix 1: Ethics clearance certificate

Faculty of Health Sciences

TECHNOLOGY

## ETHICS CLEARANCE CERTIFICATE

Student Name	Thembelihle Sylvia Pallence Ngxongo	Student No	21031825
Ethics Reference Number	FHSEC 035 / 10	Date of FRC Approval	20-09-2010
Qualification	M Tech: Nursing		
Research Title:	Factors Influencing Implementation of Basic Ante Natal Care programme in Primary Health Care clinics in eThekweni District, KwaZulu-Natal		

In terms of the ethical considerations for the conduct of research in the Faculty of Health Sciences, Durban University of Technology, this proposal meets with Institutional requirements and confirms the following ethical obligations:

1. The researcher has read and understood the research ethics policy and procedures as endorsed by the Durban University of Technology, has sufficiently answered all questions pertaining to ethics in the DUT 186 and agrees to comply with them.
2. The researcher will report any serious adverse events pertaining to the research to the Faculty of Health Sciences Research Ethics Committee.
3. The researcher will submit any major additions or changes to the research proposal after approval has been granted to the Faculty of Health Sciences Research Committee for consideration.
4. The researcher, with the supervisor and co-researchers will take full responsibility in ensuring that the protocol is adhered to.
5. The following section must be completed if the research involves human participants:

	YES	NO	N/A
❖ Provision has been made to obtain informed consent of the participants	X		
❖ Potential psychological and physical risks have been considered and minimised	X		
❖ Provision has been made to avoid undue intrusion with regard to participants and community	X		
❖ Rights of participants will be safe-guarded in relation to:	X		
- Measures for the protection of anonymity and the maintenance of Confidentiality.			
- Access to research information and findings.	X		
- Termination of involvement without compromise	X		
- Misleading promises regarding benefits of the research			

20/09/2010  
DATE

20/09/10  
DATE

21/09/2010  
DATE

21/09/2010  
DATE

## Appendix 2: Appointment of supervisor/promoter



02 November 2010

**Reference: Proposal Ratification: TSP NGXONGO, Student number 21031625**

Dear Mrs Ngxongo

### **MASTERS DEGREE OF TECHNOLOGY: NURSING**

This serves to confirm the ratification of your research proposal by the Higher Degrees Committee, at its meeting on 13 October 2010, as follows:

1. Research proposal and provisional dissertation title:

**FACTORS INFLUENCING SUCCESSFUL IMPLEMENTATION OF BASIC ANTE NATAL CARE PROGRAMME IN PRIMARY HEALTH CARE CLINICS IN ETHEKWINI DISTRICT, KWAZULU-NATAL**

Supervisor: Dr MIN Sibiya

Co-supervisor: N/A

Please note that any proposed changes in the dissertation title require the approval of your supervisor/s, the Faculty Research Committee, as well as ratification thereof by the Higher Degrees Committee.

2. Research budget to the amount of **R15 000.00**

Please note that this funding is not a scholarship or bursary and is therefore not paid directly to you, but is controlled by your supervisor. Any proposed changes to use of this funding allocation require the approval of your supervisor and the Faculty Research Committee.

The Institutional Research Committee has stipulated that:

- (a) The funding for the Research budget allocated to you is subject to compliance with the Intellectual Property Rights from Publicly Financed Research and Development Act No. 51, 2008 (including the Regulations) in force from time to time;
- (b) This University retains the ownership of any Intellectual Property (patent, design, etc.) registered in respect of the results of your Masters/Doctors Degree in Technology studies as a result of the award and the provisions of the above Act;
- (c) Should any amounts accrue to you in respect of the disposal of any tangible assets developed or created during the course and scope of your Masters/Doctors Degree in Technology, such amount will first be directed towards repaying the University the funding

investment which the University has made in approving your request for funding, with the balance being retained by you;

- (d) If the University provided the equipment/materials for the creation of artefacts, this cost must be refunded to the University if such artefacts are sold;
- (e) Should you find any of the terms above not acceptable then you are given the option to decline the Research budget award to your project in writing.

May we remind you that in terms of Rule G25(2)(b), if you fail to obtain the Masters/Doctors degree within the maximum time period allowed after first registering for the qualification, the Senate may refuse to renew your registration or may impose any conditions it deems fit. You may apply to the Faculty Research Committee for an extension.

Please note that you are required to re-register each year.

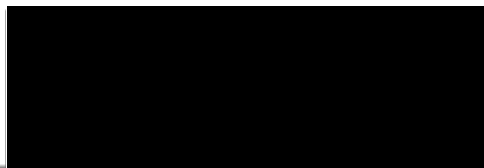
You are invited to apply for a Postgraduate Award from the Postgraduate Development and Support Directorate. The forms are available on the DUT website at [www.dut.ac.za](http://www.dut.ac.za); please note that conditions apply. You are also invited to contact the PGDS office to enquire about further support for your research studies.

Should you experience any problems relating to your research, your supervisor must be informed of the matter as soon as possible. If the difficulties persist, you should then approach your Head of Department and thereafter the Executive Dean of the Faculty.

Please refer to the 2010 General Rule Book concerning the rules relating to postgraduate studies, which include *inter alia* acceptable minimum and maximum timeframes, submission of thesis/dissertations, etc. You are also advised to read the Postgraduate Students' Guide which is available on the DUT website.

Please do not hesitate to contact this office for any assistance. We wish you success in your studies.

Kind regards,



Prof. A. Jordaan

Director: Postgraduate Development and Support

Cc Faculty officer: Mr. V Singh

TIP Research Finance: Ms R Govender

Head of Department: Mr. M Kgware

Supervisor: Dr MN Sibiya

### Appendix 3: Letter of permission to eThekweni Municipality

16 Talana Place  
Seaview  
4094  
13 July 2010

The Head of Health Unit  
EThekweni Municipality  
9 Archie Gumede Place  
Durban  
4000

Dear Sir/ Madam

**Re: REQUEST FOR A PERMISSION TO CONDUCT A STUDY**

I am presently registered as a Masters student at the Durban University of Technology in the Department of Community Health Studies, Nursing Programme. The proposed title of my research project is: **FACTORS THAT AFFECT IMPLEMENTATION OF BASIC ANTE NATAL CARE PROGRAMME IN THE MUNICIPALITY PRIMARY HEALTH CARE FACILITIES IN ETHEKWINI DISTRICT, KWAZULU NATAL.**

The aim of the study is to identify both the negative and the positive factors that might be affecting the implementation of BANC programme. A non-experimental descriptive quantitative design will be used to identify the factors that may influence implementation of BANC programme. The study will be conducted in the fixed PHC facilities of eThekweni Municipality. A three phase sampling technique will be used. Phase one will involve sampling the PHC facilities from the three sub-districts. The second phase will involve simple random selection of records that will be done in each facility included in the study. Twenty BANC checklists for the clients that previously attended ANC and have given birth will be reviewed. The third phase will involve purposive sampling of all consenting midwives.

Data collection will be done in two phases. The first phase will involve record review to identify the facilities that have implemented BANC programme. The second phase will entail data collection from the midwives by using questionnaires to identify factors that affect the implementation of BANC programme and to assess their perceptions of BANC programme.

I hereby request your permission to conduct a research project at your institute. My research proposal has been attached for your perusal. Your support and permission to conduct the study in your facility will be appreciated.

Yours sincerely

.....

Mrs. TSP Ngxongo

Student Number: 21031625

Supervisor: Dr M.N. Sibiya

Appendix 4: Letter of permission from eThekweni Municipality

**ETHEKWINI MUNICIPALITY**  
**Health and Social Services Cluster**  
**Office of the Head of Health**

9 Archie Gumede Place  
Durban 4001

P O Box 2443  
Durban 4000

Tel: (031) 311 3571

Fax: (031) 311 3710

Website: <http://www.durban.org.za>



26 October 2010

Thembelihle Ngxongo :  
16 Talana Place  
Seaview

Dear Madam :

**RE: RESEARCH IN MUNICIPAL CLINIC**

This serve to notify that permission has been granted for you to conduct research on Factors influencing implementation BANC as from October 2010 to October 2011.

Yours Sincerely

Dr. Ngomane  
Deputy Head: Clinical Support

**ETHEKWINI MUNICIPALITY**  
**HEALTH DEPARTMENT**  
9 ARCHIE GUMEDE PLACE  
DURBAN  
P.O. BOX 2443, DURBAN, 4000  
TELEPHONE: (031) 311 1111 FAX: (031) 311 3530

## **Appendix 5: Letter of Information and Consent**

**Title of the Research Study:** Factors influencing implementation of Basic Ante Natal Care programme in Primary Health Care clinics in eThekweni District, KwaZulu-Natal

**Principle Investigator/s:** Mrs. Thembelihle Ngxongo

**Supervisor:** Dr Nokuthula Sibiya

**Telephone Number:** 031-373 2032

**Brief Introduction and Purpose of the Study:** Basic Ante Natal Care (BANC) is the programme that was introduced in South Africa by the National Department of Health in 2006. The aim of the programme is to strengthen the quality of antenatal care. However, not all facilities have implemented the BANC program successfully. The researcher intends to undertake a study to identify the factors that affect implementation of BANC both in a positive and negative way.

**Research design:** A non-experimental descriptive quantitative design will be used to identify the factors that may influence implementation of BANC programme. The review of records will be done where BANC checklists that are used in the clinics will be analyzed using a checklist. The midwives working in PHC facilities will be used as subjects to identify the factors that affect implementation of BANC programme. Questionnaires will be used to collect data from the midwives.

**Risks or Discomforts to the Subject:** None

**Benefits:** Research findings will assist the midwives and the entire health unit to overcome the negative factors that affect implementation of BANC and strengthen BANC programme.

**Reason/s why the Subject May Be Withdrawn from the Study:** The only time the subject will be withdrawn is only if the subject request to be withdrawn



**Remuneration:** None

**Costs of the Study:** None

**Confidentiality:** All data collected will be kept in strict private and will only be used for the purpose of the study only. Data will be destroyed immediately on completion of the study. No information will be linked to subject's identity.

**Research-related Injury:** the study does not pose any risk of injury to the subjects.

**Statement of Agreement to Participate in the Research Study:**

I -----subject's full name, have read this document in its entirety and understand its contents. Where I have had any questions or queries, these have been explained to me by Mrs. Thembelihle Sylvia Patience Ngxongo to my satisfaction. Furthermore, I fully understand that I may withdraw from this study at any stage without any adverse consequences and my future health care will not be compromised. I, therefore, voluntarily agree to participate in this study.

Subject's Name-----Signature-----Date-----

Researcher's Name-----Signature-----Date-----

---

## Appendix 6: Checklist for record review

### CLINIC CHECKLIST – CLASSIFYING (FIRST) VISIT

	YES	NO
Clinic checklist classifying ( first ) visit used		
Clinic checklist classifying ( first) visit completely filled		
Indicated on the checklist whether the woman is eligible for BANC		
First visit done on or before the woman was twenty weeks pregnant		
Sticker to indicate whether client is eligible for BANC present		

## CLINIC CHECKLIST – CLASSIFYING (FOLLOW UP) VISIT

Clinic checklist – classifying( follow up ) completely filled		
Minimum four to five scheduled visits recorded on the checklist		
follow up visits correspond to the following dates 20 weeks		
26weeks		
32weeks		
38wees		
ANC visits recorded after 38weeks gestation		
Client given an appointment to attend the hospital if she has not given birth by 40weeks		
Additional ANC visits recorded on the appropriate column		
Haemoglobin level checked at booking		
32weeks		
38 weeks		
RPR test done during first visit		
RPR test repeated at 38weeks if test was negative at first booking		
Client tested for HIV		
WHO staging done for the client		
Client issued with calcium supplements		
Delivery plan discussed with client		
Checklist counter signed at 38weeks		
Checklist filled according to return dates for the clients		



6. Is your clinic implementing BANC?

Yes ☐

No ☐

IF NO, explain why \_\_\_\_\_

IF YES, for how long \_\_\_\_\_

7. What challenges have you experienced regarding BANC implementation?

---

---

---

8. How often do you receive in-service training on BANC?

Never ☐

Every month ☐

Every 1/4 ☐

Rarely ☐

9. Is the manager of your clinic trained in BANC?

Yes ☐

No ☐

10. Does your manager do ANC supervisory visits?

Yes ☐

No ☐

If yes, state how often \_\_\_\_\_

11. How would you rate the support that you receive from your manager regarding BANC?

No support ☐

Inadequate ☐

Adequate ☐

## 12. Policies and Guidelines

Do you have policies and guidelines on the following? :

	Yes	No
BANC		
Referral Patterns		
Management Of Obstetric Conditions		
Maternity Care Guidelines		
PMTCT Guidelines		

## 13. Communication

How is new information communicated to you?

Never	<input type="checkbox"/>	Written memos/circular	<input type="checkbox"/>
In-service/Workshops	<input type="checkbox"/>	Communication meetings	<input type="checkbox"/>

## 14. Workload

What is the average number of ANC clients that you see per day?

First visits ☐

Repeat visits ☐

What is the nurse to patient ratio in your clinic? \_\_\_\_\_

What is the expected nurse patient ratio for the organization? \_\_\_\_\_

### 15. Package of Services

Tick the services that are provided in your facility.

SRH ☐      Minor ailments ☐      Chronic ☐      Well Baby ☐

ANC ☐      Geriatrics ☐      ARV ☐      Psychiatric ☐

Other \_\_\_\_\_

**16. Tick the appropriate response**

<b>Statement</b>	<b>Strongly agree</b>	<b>Agree</b>	<b>Disagree</b>	<b>Strongly disagree</b>
1.BANC requires that the first visit ANC be done at least when the woman is three months pregnant				
2.HIV positive women should be referred to a high level of care irrespective of CD4 cell count or WHO staging				
3.The average number of ANC visits for a low risk woman is five visits				
4.All pregnant women should be given calcium supplementation to prevent pregnancy induced hypertension				
5.All pregnant women who have been referred to a higher level of care should never be referred back to PHC level				
6.BANC is adding more work onto the PHC services that are already overloaded with work				
7.BANC checklists are not necessary and are additional paperwork for nurses				
8.It is much better to continue with the old method of providing ANC that the midwives are familiar with than starting a new method				
9.Pregnant women should attend ANC more frequently because they cannot be trusted to monitor their own pregnancy				
10.BANC is a good strategy for improving the quality of ANC				



## **Appendix 8: Letter of agreement between the researcher and research assistant plus instructions**

The researcher in her study on Factors influencing implementation of Basic Ante Natal Care program in the Municipality Primary Health Care facilities in eThekweni District Kwa-Zulu Natal requires collecting data from midwives who are working in ANC clinics. Data will be collected in the months of November to December 2010. The research assistant is required to facilitate data collection from the midwives using questionnaires.

### **INSTRUCTIONS TO THE RESEARCH ASSISTANT**

- 1 The research assistant will be expected to visit 18 fixed PHC facilities that has been identified by the researcher
- 2 Transport will be provided for the assistant to travel to and from all 18 facilities
- 3 The assistant will be paid R100.00 per facility visited
- 4 A total of R1800.00 will be paid by cheque on completion of data collection.
- 5 The research assistant will distribute the questionnaires to all the midwives who are working in ANC clinics in each facility visited
- 6 A minimum of three midwives must be enrolled from each facility.
- 7 Each midwife who agrees to take part in the study will be made to sign a written consent; however the information in the consent forms should in no way be linked to the responses from the midwives. This is to ensure confidentiality.
- 8 The midwives must return all questionnaires back to the research assistant by the end of each working day
- 9 The research assistant should remain in the facility for the whole day (08h00-15h30) so that:
  - Midwives get sufficient time to complete the questionnaires with minimum disruption to their routine activities.
  - She/he is available to guide the midwives when filling up the questionnaires.
  - Ensure that each midwife work on his/her own in order to ensure individual responses.
  - Collect all completed questionnaires from the midwives.

## AGREEMENT

This is to certify that I \_\_\_\_\_ ID No- \_\_\_\_\_ have agreed to assist the researcher Mrs. T.S.PNgxongo in the process of collecting data from the 18 Municipality PHC facilities. I have read and fully understood all the written instructions as stated in this agreement letter. I voluntary agree to assist the researcher on the agreement that the researcher will pay me R100.00 for each facility that I will visit and that a total of R1800.00 will be paid by cheque on completion of data collection

Signed \_\_\_\_\_ Date \_\_\_\_\_  
Research assistant

Signed \_\_\_\_\_ Date \_\_\_\_\_  
Researcher

Signed \_\_\_\_\_ Date \_\_\_\_\_

Witness

Signed \_\_\_\_\_ Date \_\_\_\_\_